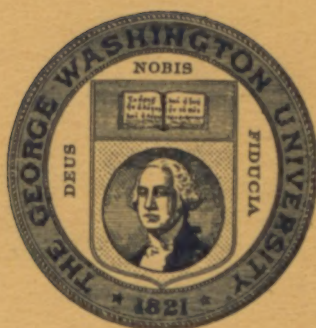


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NUMBER 1

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CATALOGUE NUMBER



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JUNE, OCTOBER, AND DECEMBER

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THE
GEORGE WASHINGTON UNIVERSITY
BULLETIN

CATALOGUE NUMBER

MARCH 1913

BALTIMORE
WILLIAMS & WILKINS CO.
1913

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PART I
GENERAL AND HISTORICAL

PART I
GENERAL AND HISTORICAL

1913							1914						
JULY							JANUARY						
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31
SEPTEMBER							MARCH						
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DECEMBER							JUNE						
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27	28	29	30	27	28	29	30
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UNIVERSITY CALENDAR

1913

June	11	<i>Wednesday.</i> —University Commencement.
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SUMMER VACATION

September	24	<i>Wednesday.</i> —Academic Year begins in all Departments of the University.
October	8	<i>Wednesday.</i> —Stated meeting of the Board of Trustees.
October	20	<i>Monday.</i> —Last day for registration for the first term without late-registration fee.
November	27-29	<i>Thursday to Saturday,</i> both inclusive.—Thanksgiving recess.

RECESS FROM DECEMBER 24, 1913, TO JANUARY 3, 1914, BOTH INCLUSIVE

1914		
January	14	<i>Wednesday.</i> —Stated meeting of the Board of Trustees.
January	26	<i>Monday.</i> —Last day on which theses may be presented.
February	2	<i>Monday.</i> —Second Term begins.
February	9	<i>Monday.</i> —Doctorate Disputation.
February	20	<i>Friday.</i> —Last day for registration for the second term without late-registration fee.
February	23	<i>Monday.</i> —A holiday in all Departments of the University. Winter Convocation.
April	10-13	<i>Friday to Monday,</i> both inclusive.—Easter holidays.
April	14	<i>Tuesday.</i> —Davis Prize Speaking.
May	1	<i>Friday.</i> —Last day on which theses may be presented.
May	18	<i>Monday.</i> —Doctorate Disputation.
May	26-29	<i>Monday to Thursday.</i> —Examinations for admission.
May	30	<i>Saturday.</i> —A holiday in all Departments of the University.
June	3	<i>Wednesday.</i> —Annual meeting of the Board of Trustees.
June	7	<i>Sunday.</i> —Baccalaureate Sermon.
June	10	<i>Wednesday.</i> —University Commencement.

THE LEGAL HISTORY OF THE CORPORATION

The George Washington University is the successor of the "Columbian College in the District of Columbia," which was chartered by Act of Congress in 1821. The name and title of the Columbian College were in 1873 changed by an Act of Congress, under the terms of which the College was given the name of the "Columbian University." The Columbian University was by Act of Congress in 1904 authorized to change its name, subject to the approval of the Secretary of the Interior and the Commissioner of Education. The Board of Trustees elected to take the name of "The George Washington University," and the name was approved by the government officials, as required by the statute; the change of name going into effect September 1, 1904. All the Acts of Congress now in force relative to the Columbian College and the Columbian University are therefore parts of the charter of The George Washington University.

The original charter of the Columbian College was as follows:

An Act to incorporate the Columbian College, in the District of Columbia

Be it enacted, &c., That there be erected, and hereby is erected and established, in the District of Columbia, a College, for the sole and exclusive purpose of educating youth in the English, learned, and foreign languages, the liberal arts, sciences, and literature; the style and title of which shall be, and hereby is declared to be, the "Columbian College in the District of Columbia."

SEC. 2. *And be it further enacted,* That the said College shall be under the management, direction, and government of a number of Trustees, not exceeding thirty-one, to be elected triennially, by the contributors to the said College, qualified to vote, in such manner, and under such limitations and restrictions, as may be provided by the ordinances of the College, on the first Monday in May; and that the first Trustees of the said College shall consist of the following persons, viz: Obadiah B. Brown, Luther Rice, Enoch Reynolds, Josiah Meigs, Spencer H. Cone, Daniel Brown, Return J. Meigs, Joseph Gibson, Joseph Cone, Thomas Corcoran, Burgis Allison, Thomas Sewall, and Joseph Thaw: which said Trustees, and their successors, shall forever hereafter be, and they are hereby declared to be, one body politic and corporate, with perpetual succession, in deed and in law, to all intents and purposes whatsoever, by the name, style and title of the "Columbian College in the District of Columbia;" by which name and title, they, the said Trustees, and their successors, shall be competent and capable, at law and in equity, to take to themselves and their successors, for the use of the said College, any estate, in any messuage, lands, tenements, hereditaments, goods, chattels, moneys, and other effects, by gift, grant, bargain, sale, conveyance, assurance, will, devise, or bequest, of any person or persons whatsoever: *Provided,* The same do not exceed, in the whole, the yearly

value of twenty-five thousand dollars; and the same messuages, lands, tenements, hereditaments, and estate, real and personal, to grant, bargain, sell, convey, assure, demise, and to farm let, and place out on interest, for the use of the said College, in such manner as to them, or at least nine of them, shall seem most beneficial to the institution, and to receive the rents, issues, and profits, income and interest, of the same, and to apply the same to the proper use and benefit of the said College; and by the same name to sue, commence, prosecute, and defend, implead and be impleaded, in any courts of law and equity, and in all manner of suits and actions whatsoever, and generally, by and in the same name, to do and transact all and every the business touching or concerning the premises.

SEC. 3. *And be it further enacted*, That the said Trustees shall cause to be made for their use one common seal, with such devices and inscriptions thereon as they shall think proper, under and by which all deeds, diplomas, certificates, and acts of the said College, shall pass and be authenticated; and the same seal, at their pleasure, to break and devise a new one.

SEC. 4. *And be it further enacted*, That the said Trustees, or five of them at least, shall meet at the College, on College Hill, in the said District of Columbia, on the first Monday in March next, for the purpose of concerting and agreeing to such business as, in consequence of this Act, shall be proper to be laid before them at the commencement of the work they have undertaken, and shall have power to adjourn from time to time, as they shall see cause, to any other times or places, for the purpose of perfecting the same. That there shall be a stated meeting of the said Trustees held twice in every year at least, at such place and time as the said Trustees, or a quorum thereof, shall appoint, of which public notice shall be given, after the first meeting, at least twenty days before [the] time of such intended meeting, whenever the President, to be appointed by them, shall deem the business of the institution to require the same, and give due notice thereof, which he is hereby authorized to do; and if, at such stated or occasional meetings, five of the said Trustees shall not be present, those of them who shall be present shall have power to adjourn the meeting to any other day, as fully and effectually, to all intents and purposes, as if the whole number of Trustees for the time being were present; but, if five or more of the said Trustees shall meet at the said appointed times, or at any other time of adjournment, then such five of the said Trustees shall be a board or quorum, and a majority of the votes of them shall be capable of doing and transacting all the business and concerns of the said College not otherwise provided for by this Act; and particularly of making and enacting ordinances for the government of the said College; of electing and appointing the President, Professors, and Tutors, for the said College; of agreeing with them for their salaries and stipends, and removing them for misconduct, or breach of the laws of the institution; of appointing committees of their own body to carry into execution all and every the resolutions of the Board; of appointing a President, Treasurer, Secretary, stewards, managers, and other necessary and customary officers, for taking care of the estate and managing the concerns of the corporation; and, generally, a majority of voices of the board, or quorum of the said Trustees, consisting of five persons at least, at any semi-annual, occasional, or adjourned meeting, after notice, given as aforesaid, shall determine all matters and things (although the same be not herein particularly mentioned) which shall occasionally arise, and be incidentally necessary to be determined and transacted by the said Trustees *Provided always*, That no ordinances shall be of force which shall be repugnant to this charter, or to the laws of the District of Columbia.

SEC. 5. *And be it further enacted*, That the head or Chief Master for the said College shall be called and styled the "President," and the Masters thereof shall be called "Professors and Tutors;" but neither President, Professors, or Tutors, while they remain such, shall ever be capable of the office of Trustee.

SEC. 6. *And be it further enacted*, That the President, Professors and Tutors, or a majority of them, shall be called and styled the "Faculty of the College," which Faculty shall have the power of enforcing the rules and regulations adopted by the Trustees for the government of the pupils, by rewarding or censuring them, and finally, by suspending such of them who as after repeated admonitions shall continue disobedient and refractory, until a determination of a quorum of the Trustees can be had; and of granting and confirming, by and with the approbation and consent of a board of the Trustees, signified by their mandamus, such degrees in the liberal arts and sciences, to such pupils of the institution or others, who, by their proficiency in learning, or other meritorious distinction, they shall think entitled to them, as are usually granted and conferred in colleges; and to grant to such graduates, diplomas or certificates, under their common seal, and signed by the Faculty, to authenticate and perpetuate the memory of such graduation.

SEC. 7. *And be it further enacted*, That persons of every religious denomination shall be capable of being elected Trustees; nor shall any person, either as President, Professor, Tutor, or pupil, be refused admittance into said College, or denied any of the privileges, immunities, or advantages thereof, for or on account of his sentiments in matters of religion.

SEC. 8. *And be it further enacted*, That no misnomer of the said corporation shall defeat or annul any gift, grant, devise, or bequest, to or from the said corporation: *Provided*, The intent of the parties shall sufficiently appear upon the face of the gift, grant, will, or other writing, whereby any estate or interest was intended to pass to or from the said corporation.

SEC. 9. *And be it further enacted*, That the constitution of the said College, herein and hereby declared and established, shall be, and remain, the inviolate constitution of the said College forever; and the same shall not be altered or alterable by any ordinance or law of the said Trustees: *Provided*, That it may be lawful for the Congress of the United States to revoke and repeal this Act, at any and at all times whenever they shall think fit so to do.

SEC. 10. *And be it further enacted*, That it shall be the duty of the said Board of Trustees to keep a regular book or journal, in which shall be entered, under their direction, besides an account of all their ordinary acts and proceedings, all the by-laws, ordinances, rules, and regulations, which may be adopted by the said Board, for their own government, and for the government of the institution; also, a schedule of all the property and effects, real, personal, or mixed, which shall or may be vested in the said Trustees, for the use of the said College, by virtue of any gift, grant, bargain, sale, will, or otherwise, together with annual statements concerning the accounts and finances of the institution. That it shall, moreover, be the duty of the said Trustees, to cause to be enrolled, in the said book or journal, the names of all the contributors to the institution qualified to vote for Trustees, with their respective places of residence; and the said book or journal shall, at all times be open to the inspection or examination of the Attorney General of the United States; and, when required by either House of Congress, it shall be the duty of said Trustees to furnish information respecting their own conduct, the state of the institution, and of its finances, which shall or may be so required.

SEC. 11. *And be it further enacted*, That in case any vacancy or vacan-

cies shall happen in the Board of Trustees aforesaid by death, inability, resignation, or otherwise, at any time between the stated or triennial elections, that then it shall and may be lawful for the other Trustees, or any five of them, to proceed, at any subsequent meeting after the happening of such vacancy or vacancies, to choose, by ballot, any suitable person or persons to fill the same.

SEC. 12. *And be it further enacted*, That the employment or application of the funds or income of the said corporation, or any part thereof, for any purpose or object other than those expressed and defined in the first section of this Act, or the investment thereof in any other mode than is described and provided in the second section thereof, shall be deemed and taken to be a forfeiture of all the rights and immunities derived from this Act, and the same shall, thenceforth, cease and become null and void.

Approved, February 9, 1821.

By Act of Congress of July 14, 1832, there were donated to the Columbian College Washington city lots to the value of twenty-five thousand dollars; the Act providing that the fund arising from the proceeds of the sale of the lots should constitute an endowment fund for the support of professorships. By Act of February 28, 1839, permission was granted to the College to use seven thousand dollars of the fund for the payment of its debts.

By Act of Congress of February 21, 1871, a form of government by an elected Governor and Legislative Assembly was established for the District of Columbia, and on July 25, 1871, the Legislative Assembly passed the following statute:

An Act for the relief of the Columbian College, in the District of Columbia

Be it enacted by the Legislative Assembly of the District of Columbia, That the Columbian College, in the District of Columbia, chartered by and organized and acting under the Act of Congress approved February nine, eighteen hundred and twenty-one, may, from the proceeds of any sale of its property, apply such sum as may be needful to pay its present indebtedness and place its libraries, buildings, and apparatus of instruction in good condition, and execute all deeds needful to quiet the title of property already sold.

SEC. 2. *And be it further enacted*, That the Trustees of said College elected in May last shall constitute the corporation of said College until their successors in office shall be chosen and qualified as hereinafter provided, and may, until then, as vacancies occur in their number, temporarily fill them by the election of fit persons residing in the District of Columbia.

SEC. 3. *And be it further enacted*, That the said Trustees shall meet in the Law Building of said College at noon, on the twenty-fifth day of June, eighteen hundred and seventy-two, for the purpose of choosing, and shall then and there, or at the time and place to which said meeting may be adjourned, elect thirteen Trustees and thirteen Overseers, who shall, upon their election, constitute the College corporation, and they and their successors shall thenceforward be, and be known and recognized as, the Columbian College in the District of Columbia.

SEC. 4. *And be it further enacted*, That the Trustees chosen at the said meeting in June, eighteen hundred and seventy-two, or who may thereafter be chosen, shall be residents of the District of Columbia, and that at said meeting, and at any annual meeting of Trustees and Over-

seers to be thereafter held in said City of Washington on the Tuesday next preceding the last Wednesday in June, annually, the Trustees and Overseers in convention assembled shall fill vacancies in their Board, and shall, by ballot, elect from among the Trustees two suitable persons, one to be President and the other to be Treasurer and Secretary of said corporation and of the Board of Trustees, and shall establish ordinances and by-laws, or alter or repeal the same; and also frame laws and regulations for the College Faculty and students in all the departments thereof, and by ballot elect such teachers, tutors, professors, lecturers, and President, and with such salaries and duties as said corporation may deem proper.

SEC. 5. *And be it further enacted*, That at said annual meetings not less than seven Trustees and three Overseers shall constitute a quorum for the transaction of any business except adjournment, and adjournment may be made by any number present: *Provided*, That a final adjournment shall not be delayed beyond one week after the time fixed for the annual meeting.

SEC. 6. *And be it further enacted*, That during the interval between said annual meeting the Trustees shall, as now, hold semi-annual, quarterly, monthly, and occasional meetings to fill temporarily, as the case may require, vacancies in the Faculty or in their own Board, and with all their present powers as modified by this Act, subject to the ordinances and by-laws of the corporation; but no real estate or other property of said corporation shall, after the twenty-fifth day of June, eighteen hundred and seventy-two, be disposed of by the Trustees, except by vote of the corporation or in pursuance of its ordinances.

Approved, July 25, 1871.

This Act of the Legislative Assembly of the District was confirmed by Congress in 1873, and by the same statute the College was given the name of "the Columbian University." This Act was as follows:

An Act supplemental to the Act of February ninth, eighteen hundred and twenty-one, incorporating the Columbia[n] College in the District of Columbia

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the act to incorporate the Columbia[n] College in the District of Columbia, approved February ninth, eighteen hundred and twenty-one, be, and the same is hereby, so modified that said corporation shall be hereafter known and called by the name of the Columbia[n] University, and in that name shall take, hold and manage all the estate and property now belonging to said College, or that may hereafter be conveyed, devised, or bequeathed to said corporation by its original name; that the restriction of the yearly value of the property of the said corporation to the sum of twenty-five thousand dollars be, and the said restriction is hereby, repealed; and that said corporation may increase the number of its Overseers to twenty-one, and the number of its Trustees to twenty-one, exclusive of the President of the Faculty, who shall be, *ex officio*, a Trustee of said corporation.

SEC. 2. That the Act for the Relief of the Columbian College in the District of Columbia enacted by the Legislative Assembly of said District, and approved July twenty-fifth, eighteen hundred and seventy-one, be, and the same is hereby, approved and confirmed: *Provided*, That this Act nor the said Act of the Legislative Assembly of the said District, shall be so construed as to authorize the said Columbian University to sell, or use the proceeds of any sale of land granted by Congress to said institution for any purpose other than that expressed in the Act

of Incorporation and the Act granting any such land or real estate, or contrary to any will, devise or grant of any land or real estate heretofore or hereafter made, by any person or persons to said institution.

Approved, March 3, 1873.

By the Act of Congress of May 31, 1878, it was provided that the annual meeting of the corporation might be held either in May or June, and by the Act of January 14, 1893, it was provided that the Secretary and the Treasurer might be elected from the Trustees or not, as the Board of Trustees might deem proper, and that it should not be necessary that both offices should be held by one person.

In 1898 Congress amended the charter by an Act as follows:

An Act supplemental to the Act of February ninth, eighteen hundred and twenty-one, incorporating the Columbian College in the District of Columbia, and the Acts amendatory thereof

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Columbian University, on and after the first day of June, eighteen hundred and ninety-eight, shall be under the management and control of a Board of Trustees, consisting of twenty-two members; the President of the University shall be ex officio a member of said Board, and the remaining twenty-one shall be divided into three classes with seven members in each class; a majority of said Board shall be residents of the District of Columbia, and seven members shall constitute a quorum for the transaction of business. That on or before the thirty-first day of May, eighteen hundred and ninety-eight, a meeting of the Trustees and Overseers of said University shall be held, and said meeting shall elect twenty-one Trustees, seven of whom shall be designated to serve from the first day of June, eighteen hundred and ninety-eight, until the annual meeting in eighteen hundred and ninety-nine; and seven from the same date until the annual meeting in nineteen hundred; and seven until the annual meeting in nineteen hundred and one. Two-thirds of said Trustees, and also the President of the University, shall be members of regular Baptist churches; that is to say, members of churches of that denomination of Protestant Christians now usually known and recognized under the name of the regular Baptist denomination; said Trustees so elected shall serve for the periods mentioned and until their successors are elected. That on the first day of June, eighteen hundred and ninety-eight, the terms of office of the present Trustees and Overseers shall cease and determine and thereupon the control and management of said University, its property and trusts, shall vest in the Board of Trustees elected as hereinabove provided and their successors.

SEC. 2. That at the annual meeting in eighteen hundred and ninety-nine, and annually thereafter, there shall be elected by the Board of Trustees seven Trustees to fill the places of the class whose terms of office expire; and the Board of Trustees may prescribe in a by-law the mode of nominating persons for election as Trustees. A failure to elect Trustees at the annual meeting shall not create vacancies in the Board, but such election may be had and vacancies occurring during the year may be filled for the unexpired term by the Board at any general or special meeting.

SEC. 3. That the Board of Trustees provided for herein shall have, and they are hereby given, full power and authority to appoint and remove any and all officers, professors, lecturers, teachers, tutors, agents,

and employees who are now or may hereafter be elected or appointed; they may, by a vote of two-thirds of all the Trustees constituting said Board, adopt and change by-laws for the conduct of the business and educational work of said University; they may appoint an Executive Committee composed of Trustees, designate the number and Chairman thereof, with such powers and authority as are usually exercised by an Executive Committee, and which shall be conferred by the Board, subject always to the control of the Board of Trustees; they may create and establish schools and departments of learning to be connected with and become a part of said University; they may receive, invest, and administer endowments and gifts of money and property for the maintenance of educational work by said University, and by any department and chair thereof now established or which may hereafter be created or established by said University; and they shall have all the powers and authority heretofore granted to and vested in the Trustees and Overseers of said University.

SEC. 4. That the annual meeting of the Board of Trustees shall be held in the City of Washington, District of Columbia, on the Wednesday nearest the first day of June in each year; two other stated meetings shall be held on the second Wednesday of October and January in each year, and special meetings may be called by the President of the University or by the Executive Committee or by seven members of the Board of Trustees upon such notice and at such hour and place as may be designated in the by-laws; at all meetings any business necessary to be transacted may be considered and acted upon, and any meeting may be adjourned from time to time by the Trustees present, whether constituting a quorum or not, notice of such adjournment to be given, as of called meetings, to those Trustees not present.

SEC. 5. That the terms of office of the President of the University, the Treasurer and other officers, professors, and lecturers, and the employment of agents and employees, and the title to all the property and rights in and management of the endowment funds of the University shall not be affected by the change of management herein provided for, but they shall continue and be subject to the control and management of the Board of Trustees hereby created the same as they are now subject to the control and management of the corporation.

SEC. 6. That all acts and parts of acts inconsistent with the provisions of this Act are hereby repealed.

Approved, March 18, 1898.

In 1904 Congress passed an Act restoring the non-denominational character of the institution and permitting the change of its name. This Act and the certificate of change of name were as follows:

An Act supplemental to the Act of February ninth, eighteen hundred and twenty-one, incorporating the Columbian College in the District of Columbia, and the Acts amendatory thereof

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Act to incorporate the Columbian College, in the District of Columbia, approved February ninth, eighteen hundred and twenty-one, and the amendatory Act approved March eighteenth, eighteen hundred and ninety-eight, be and the same are hereby, amended by repealing and striking out of the said charter the following words in lines twenty to twenty-five in section one of the said amendatory Act of March eighteenth, eighteen hundred and ninety-eight, namely, "Two-thirds of said Trustees, and also the

President of the University, shall be members of regular Baptist churches; that is to say, members of churches of that denomination of Protestant Christians now usually known and recognized under the name of the regular Baptist denomination."

Sec. 2. That section thirteen of the original charter of February ninth, eighteen hundred and twenty-one, which provides "That persons of every religious denomination shall be capable of being elected Trustees; nor shall any person, either as President, Professor, Tutor or pupil, be refused admittance into said College, or denied any of the privileges, immunities, or advantages thereof, for or on account of his sentiments in matters of religion," be, and the same is hereby, re-enacted and shall be hereafter in full force as a part of said charter.

Sec. 3. That power is hereby given to the Board of Trustees of said University to change the name of said University at any regular meeting by a vote of not less than two-thirds of the total number of members of the Board, as prescribed by the charter, subject to the approval of the Secretary of the Interior and the Commissioner of Education. That upon said action being taken a certificate, under the seal of the University, stating the name adopted and the date when the name shall go into effect not less than thirty days nor more than six months from the date of its adoption, together with the fact that said name has been adopted as herein prescribed, shall be filed in the office of the Recorder of Deeds of the District of Columbia, and thereupon, upon the date specified for the name to go into effect, the University shall be known and designated by the name adopted, and by said new name the said University shall be vested with and convey its real estate, hold, control, and administer endowments and gifts of money and property heretofore and hereafter made for the maintenance of its educational work, and do and perform all acts which it now has the power to do under its said charter. Such change of name shall not in any other way change, affect, or modify in any degree the rights, privileges, obligations, and powers of the said University under the charter of February ninth, eighteen hundred and twenty-one, and the amendatory Acts thereto.

Sec. 4. That all Acts and parts of Acts inconsistent with this Act are hereby repealed.

Approved, January 23, 1904.

Certificate of Change of Name of the Columbian University to "The George Washington University"

DISTRICT OF COLUMBIA,
City of Washington:

The Columbian University, in accordance with the Act of Congress approved January 23, 1904, does hereby certify that, at the regular meeting of its Board of Trustees, duly held on the eighth day of June, 1904, at which meeting there were present more than two-thirds of the total number of members of the Board, it was unanimously resolved that, subject to the approval of the Secretary of the Interior and the Commissioner of Education, prescribed by said Act of Congress, the name of this University be changed to that of The George Washington University, the same to go into effect on the first day of September, A. D. 1904.

And it is hereby further certified, that on the twentieth day of June, A. D. 1904, the Secretary of the Interior and the Commissioner of Education duly approved in writing said change of name, which said written approval is hereto attached and made a part hereof.

In testimony whereof, said Columbian University has given this its

certificate under its corporate seal, at the City of Washington, D. C., on the twenty-first day of June, A. D. 1904.

Attest:

JOHN B. LARNER,
Secretary.
(Corporate Seal.)

CHARLES W. NEEDHAM,
President.

UNITED STATES OF AMERICA,
DEPARTMENT OF THE INTERIOR,
WASHINGTON, D. C., June 20, 1904.

Pursuant to section 882 of the Revised Statutes, I hereby certify that the annexed paper is a true copy of the original as it appears upon the files of the Department.

In testimony whereof, I have hereunto subscribed my name, and caused the seal of the Department of the Interior to be affixed, the day and year first above written.

E. A. HITCHCOCK,
Secretary of the Interior,
W. B. A.

(Seal of the Department of the Interior.)

Whereas by Act of Congress approved January 23, 1904, the Columbian University was authorized to change its name, subject to the approval of the Secretary of the Interior and the Commissioner of Education;

And whereas it has been made satisfactorily to appear to us that, at the regular meeting of the Board of Trustees of said University, held on the eighth day of June, A. D. 1904, at which meeting there were present more than two-thirds of the total number of members of said Board, it was unanimously resolved to change the name of said University to that of The George Washington University, the same to go into effect on the first day of September, A. D. 1904;

Now, therefore, this is to witness that, pursuant to said Act of Congress, we do hereby, this twentieth day of June, A. D. 1904, approve said change of name.

E. A. HITCHCOCK,
Secretary of the Interior.
W. T. HARRIS,
Commissioner of Education.

(Seal of the Department of the Interior.)

In 1905 a further amendment to the charter was made, as follows:

An Act supplemental to the Act of February ninth, eighteen hundred and twenty-one, incorporating the Columbian College in the District of Columbia, and the Acts amendatory thereof

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That The George Washington University shall have, and is hereby given, power to increase the number of its Trustees from time to time, by a two-thirds vote of the whole number of the Trustees at the time such votes are taken, to a number not exceeding forty-five. In case of the increase of the number of Trustees a certificate, stating the number of the Board and the time when it shall go into effect and that the action so taken was by two-thirds vote as required by this Act, shall be filed with the Recorder of Deeds of the District of Columbia, and upon and after the date named the Board shall consist of the number of Trustees, stated in such certificate, and said

Board may also appoint a Board or Boards of Visitors for any department or departments of educational work carried on by the University, such Boards of Visitors to be advisory only.

Sec. 2. That by and with the consent of said University, Colleges may be organized hereunder for the purpose of carrying on, in connection with the University, special lines of educational work in the arts, sciences, and liberal and technical knowledge, such Colleges to be educationally a part of the system of the University, but upon independent financial foundations, and to this end any five or more persons desirous of associating themselves for the purpose of establishing a College hereunder, may make, sign, and acknowledge before any officer authorized to take acknowledgment of deeds in the District of Columbia, and with the assent of the University in writing, file in the office of the Recorder of Deeds of the said District a certificate in writing, in which shall be stated: First, the intention to organize a corporation under this Act and the assent of the University thereto; second, the name or title by which the College shall be known in law; third, the names of the Trustees constituting the first Board, and such Trustees may be divided into three classes, the term of office of one class expiring annually; fourth, the manner of nominating and electing successors to said Trustees; fifth, the branch or branches of literature, arts, sciences, liberal or technical knowledge proposed to be taught; sixth, that the highest officer of said College shall be a Dean, the Dean and members of the Faculty to be members of the Educational Councils of the University in accordance with the rules governing the University; seventh, that all degrees shall be bestowed by the University; eighth, that in all financial and legal responsibility the College shall be an independent organization. Upon filing such certificate the Trustees named therein and their successors shall be a body politic, incorporated by the name and style stated in the certificate, and by that name and style shall have perpetual succession in association with the University, with power in the College to sue and be sued; plead and be impleaded; to acquire, hold, and convey property in all legal ways; to receive by gift, devise, or otherwise, and hold, control, and administer endowments and gifts of money and property thereafter made to it for the maintenance of its educational work; to have and use a common seal, and to alter and change the same at pleasure; to make and alter from time to time such by-laws, not inconsistent with the Constitution of the United States or the laws in force in said District or the laws of the University regulating the conduct of educational work, as may be deemed necessary for the government of the College, but said College shall not confer academic or honorary degrees; such College shall hold the property of the institution and all moneys and property conveyed to it by purchase, gift, conveyance, will, devise, or bequests solely for the purposes of the educational work specified in said certificate; the Trustees of such College shall faithfully apply all funds collected or received and the proceeds thereof belonging to the institution, according to their best judgment, in purchasing lands and erecting buildings, supporting necessary officers, instructors, and servants, and procuring all equipment, educational and otherwise, necessary to carry on the work of the College.

Sec. 3. That said University may enter into affiliated agreements with any institutions of learning outside of the District of Columbia, for the purpose of giving to students of such institutions the educational facilities of said University and the Departments of the Government in the City of Washington which are by law open to students, upon such terms as are mutually agreed upon by the said University and the affiliated institutions.

Approved, March 3, 1905.

Under section 2 of the Act of 1905, there now exist two colleges which are doing special educational work and which are in active operation—the National College of Pharmacy, organized in 1905, and the College of Veterinary Medicine, organized in 1908. The financial affairs of these Colleges are separate from those of the University, and are managed by their separate Boards of Trustees. The Faculties of these Colleges are also appointed by their respective Boards of Trustees. The connection between these Colleges and the University consists in the fact that their Deans are members of the President's Council, and that the Board of Trustees of the University confers degrees for the work done in these Colleges.

By resolutions of the Board of Trustees of the University of May 6, 1909, and January 12, 1910, provision was made for the nomination by the Alumni of two Alumni Trustees each year. In the spring of 1910, this plan was put in operation, and since then the two persons annually nominated as Alumni Trustees have been elected to membership on the Board.

BY-LAWS OF THE GEORGE WASHINGTON UNIVERSITY

ARTICLE I

The President of the University

SECTION 1. The President of the University shall hold office without limit of time, until his resignation be accepted, or he be removed from office by the Board of Trustees; he shall be the executive head of the University and of all its departments, exercising such supervision, direction, and control as will promote the efficiency of every department; he shall be responsible, under the supervision of the Board of Trustees, for the discipline of the University; he shall preside at the meetings of the Faculties, and be the official medium of communication between the Faculties and the Board of Trustees, and between the students of the University and the Board of Trustees; he shall recommend to the Board of Trustees appointments to the several Faculties; he shall be responsible for carrying out such measures concerning the internal administration of the University as the Board of Trustees may enact. He shall make a yearly report to the Board of Trustees at the January meeting concerning the state of the University. He shall control the expenditure and administration of the yearly budget when formally adopted by the Board of Trustees.

ARTICLE II

Board of Trustees

SECTION 1. No member of the teaching staff of the University except the President of the University, or of the teaching staff of any college incorporated under the charter of the University, while he remains such, shall be capable of holding the office of Trustee of the University.

SEC. 2. At the annual meeting of the Board after the election of Trustees, the Board shall elect by ballot from among their number a Chairman and Vice-Chairman of the Board to serve until the next annual meeting and until their successors are elected and qualified. The Chairman of the Board, and in his absence the Vice-Chairman, shall preside at all meetings of the Board of Trustees.

SEC. 3. At the annual meeting after the election of Trustees the Board shall elect by ballot the following officers, to serve until the next annual meeting and until their successors are elected and qualified: a Secretary, a Treasurer, an Auditor, and a Counsel of the University.

SEC. 4. In the event of a failure for any reason so to elect either or

all of the said officers, or in case of any vacancy from any cause, then an election may be held for the unexpired term at a meeting called for that purpose.

SEC. 5. The annual meeting of the Board of Trustees shall take place on the Wednesday nearest the first day of June of each year.

SEC. 6. Stated meetings of the Board shall be held on the second Wednesdays of October and January.

SEC. 7. Notice of all stated meetings shall be mailed by the Secretary of the University to each member of the Board at least five days previous to the time of such meetings.

SEC. 8. Special meetings may be called at any time by the President of the University, the Executive Committee, or by seven members of the Board of Trustees. The Secretary shall issue the notices of such meetings.

SEC. 9. The call for special meetings shall state the nature of the business to be considered, and shall be mailed at least two days before the meeting is to be held.

SEC. 10. Seven members of the Board of Trustees shall constitute a quorum for the transaction of any business.

ARTICLE III

Executive Committee

SECTION 1. There shall be an Executive Committee of seven members of the Board of Trustees, of which the President of the University shall be Chairman *ex officio*. The other members of the committee shall be elected by ballot at the annual meeting, and shall serve until their successors are elected.

SEC. 2. In case of inability to act on the part of any member of the Committee his place may be filled by the Board of Trustees.

SEC. 3. Four members of the Committee shall constitute a quorum for the transaction of business.

SEC. 4. The Committee is authorized to transact such business as may require attention between the regular meetings of the Board of Trustees; but the Chairman of the Committee shall make report at each stated meeting of the Board on the proceedings of the Committee during the intervening period, and at any meeting of the Board, if any member of the Board shall request that the report of the proceedings of any meeting or meetings of the Committee be read, the same shall be read by the Secretary.

SEC. 5. Regular meetings of the Committee shall be held during the academic year monthly, and special meetings may be called by the Secretary whenever requested by the Chairman or any two members of the Committee.

SEC. 6. In case of inability to act on the part of the Chairman of the Committee, the Committee may appoint a temporary chairman for the meeting.

ARTICLE IV

Finance Committee

SECTION 1. There shall be a Finance Committee of three members of the Board of Trustees who shall be elected at the annual meeting to serve until their successors are elected.

SEC. 2. The Committee shall invest and reinvest University funds, and shall exercise general supervision over the Treasurer's office, making report at every regular meeting of the Board of Trustees.

ARTICLE V

Visiting Committees

SECTION 1. At the annual meetings there shall be appointed a Committee of three members for each school or department of the University, who shall visit and inspect the condition and conduct of the school or department and make a written report thereon to the stated meetings of the Board of Trustees.

ARTICLE VI

The Secretary of the University

SECTION 1. The Secretary of the University shall as such attend and keep minutes of all meetings of the Board of Trustees, the Executive Committee, the educational council and faculties, as may by resolution of the Board be required to keep records. He shall give to any meeting at which he is entitled to be present any information concerning University affairs which he may have and which may be proper to be brought before such meeting. He shall have the custody of all the files and records of the University proper to his office; he shall have the custody of the corporate seal of the University, and shall affix it to corporate acts authorized by the Board of Trustees or the Executive Committee, and he shall generally do and perform such administrative duties as may be assigned him by the President from time to time not inconsistent with the by-laws.

ARTICLE VII

The Treasurer of the University

SECTION 1. The Treasurer shall give bond or shall be bonded in a surety company, at the expense of the University, for the faithful performance of his duties in such sum and with such sureties as shall be approved by the Board of Trustees.

SEC. 2. He shall keep all the funds of the University in such bank or banks as the Board of Trustees shall designate; he shall keep the trust funds, and the full account thereof, separate from the current or general funds and accounts of the University; he shall make monthly statements, showing the current financial operations and the condition of the trust funds and other invested funds to the Executive Committee; he shall

make a full report annually to the Board of Trustees as specified in Article XI, and he shall at such other times make such reports as the Trustees may require.

SEC. 3. He shall make payments only by checks upon the bank countersigned by the President of the University, or in his absence by the Secretary, and only for investments, salaries, bills, and expenses authorized by the Board of Trustees or the Executive Committee, provided, however, that when the Treasurer is absent or incapacitated, or when the office of Treasurer is vacant, or when the President and Secretary are both absent or incapacitated, or in any other emergency, the Executive Committee may by resolution make special and temporary arrangements for the signing or countersigning of checks.

ARTICLE VIII

The Auditor of the University

SECTION 1. The Auditor of the University shall make three audits each year of the books and accounts of the Treasurer. The fiscal year shall end at midnight on August 31 of each year, and the accounts shall be audited as of December 31, April 30, and August 31 at midnight.

SEC. 2. A corporation may be elected by the Board of Trustees as the Auditor of the University.

ARTICLE IX

The Counsel of the University

SECTION 1. The Counsel of the University shall render opinions to the President, the Board of Trustees, or to the Executive Committee, when requested, upon legal questions arising in the management of the educational or business affairs of the University, and shall represent the University in all legal proceedings prosecuted by or against the University. The Counsel of the University may be a member of the Board of Trustees.

ARTICLE X

Committee on Catalogue

SECTION 1. Each year the annual catalogue of the University shall be prepared by a committee consisting of the President of the University as Chairman, the Secretary of the University, and three members of the Faculty of the University appointed by the President. The Catalogue shall be published annually in pamphlet form. Each annual catalogue shall contain the charter and by-laws of the University.

ARTICLE XI

Annual Financial Report

SECTION 1. Between July 1 and October 1 in each year there shall be prepared by the Treasurer a financial report showing in detail the

financial condition of the University during the previous year, which financial report shall be certified by the Auditor to be correct. This report shall be laid before the Board of Trustees at their October meeting, and when approved by the Board of Trustees shall, with any modifications ordered by them and assented to by the Treasurer and Auditor, be printed by the University in pamphlet form.

ARTICLE XII

Sale of Land and Other Assets

SECTION 1. Real estate and other securities of the University shall not be sold or disposed of except by direction of the Board of Trustees.

SEC. 2. All deeds and conveyances of real estate belonging to the University shall be signed by the President of the University and the Secretary, and the same shall be acknowledged, attested, and the seal of the University attached thereto by the Secretary.

ARTICLE XIII

Amendments

SECTION 1. These by-laws may be amended or repealed at any meeting of the Board by a vote of the majority of all members of the Board, provided notice of the proposed amendment or change has been sent to each member of the Board at least five days before the meeting.

ARTICLE XIV

Former By-Laws Repealed

SECTION 1. All by-laws heretofore enacted are hereby repealed.

ORDINANCE

ARTICLE I

Organization

SECTION 1. The educational work of the University shall be divided into departments, and again subdivided into colleges or schools. The departments, colleges, and schools forming an integral part of the University are as follows: The Department of Arts and Sciences, comprehending the School of Graduate Studies, Columbian College, the College of Engineering and Mechanic Arts, the Teachers College; the Department of Law; the Department of Medicine; the Department of Dentistry. These departments, colleges, and schools are subject to the Board of Trustees represented by the President of the University, and unless otherwise noted, to the rules and regulations herein set forth.

SEC. 2. Associated colleges organized in accordance with the charter of the University on independent financial foundations are under the immediate control of their respective Boards of Trustees, subject in educational matters to the authority of the President and the University Board of Trustees. The National College of Pharmacy and the College of Veterinary Medicine are such associated colleges.

SEC. 3. The Department of Medicine, including the School of Medicine and the University Hospital, and the Department of Dentistry are organized under special ordinances of the Board of Trustees, and are subject to the rules and regulations of this ordinance only where the special ordinances governing them do not conflict with this ordinance.

ARTICLE II

Faculties

SECTION 1. Each department, college, and school shall be under the immediate charge of a faculty subject to the authority of the President's Council. The faculties shall recommend to the Board of Trustees candidates for degrees, diplomas, certificates, and awards.

SEC. 2. Each faculty shall be composed of all the Professors, Assistant Professors, and Instructors who teach in the department, school, or college under the charge of that faculty, and of such other members as the faculty may, on the recommendation of the Dean, with the approval of the President, admit to membership. The President shall be *ex officio* a member of each faculty, and the Secretary shall *ex officio* have voice at all faculty meetings, but no vote.

SEC. 3. A faculty may, at its discretion, delegate any of its purely administrative powers to an executive committee of which a Dean shall be Chairman, the members of which shall be nominated by that Dean and appointed by the President. Every executive committee shall be subject to the authority of the faculty from which it is appointed.

ARTICLE III

President's Council

SECTION 1. The President's Council shall have charge of all administrative educational questions, subject to the confirmation of the Board of Trustees.

SEC. 2. The President's Council shall be responsible for the coördination of work throughout the University and shall have immediate jurisdiction over every administrative educational question touching the interests of more than one department, college, or school.

SEC. 3. The President's Council shall be composed of the President of the University, the Secretary of the University, and of all the Deans in the University, *ex officio*, and of a representative or representatives from each department, college, and school of the University to be elected annually by the faculties of the respective departments, colleges, and schools; those departments, colleges, and schools with a registration of less than two hundred students having one representative, those with more than two hundred students having two representatives.

ARTICLE IV

Deans

SECTION 1. The Dean of each department, college, or school shall be appointed by the Board of Trustees from among the members of its faculty. The Dean shall, under the President, be the chief executive officer of his department, college, or school. As such he shall have authority in his department, college, or school to enforce such regulations as may be imposed by the Board of Trustees or the Faculty. He shall be held responsible for the proper preparation and conduct of the business of his department, college, or school, and for the performance of such administrative duties as pertain to his office and may be required of him by the President. He shall make annual written reports to the President.

ARTICLE V

Titles of the Teaching Staff

SECTION 1. The academic titles of those engaged in teaching shall be Professor, Assistant Professor, Instructor, Assistant, Demonstrator, and Lecturer. The word "Associate" may be prefixed to any title where, under the terms of this ordinance, it is appropriate, and in the Department of Medicine this title may be used as provided in the special ordinances governing that department.

ARTICLE VI

Appointments

SECTION 1. Instructors, Assistants, Demonstrators, and Lecturers shall, in the absence of agreement to the contrary, be appointed annually, with such compensation as shall be fixed by the Board of Trustees at the time of the appointment.

SEC. 2. Assistant Professors shall not be appointed for more than three years, subject to removal in accordance with the provisions of the charter of the University, and shall serve as Assistant Professors for at least three years before being eligible for promotion to a professorship.

SEC. 3. Professors shall be appointed without limit of time, subject to removal in accordance with the provisions of the charter of the University.

ARTICLE VII

Academic Year

SECTION 1. The academic year shall begin on the last Wednesday of September, and shall end on the Wednesday following the annual meeting of the Board of Trustees.

ADMINISTRATIVE OFFICERS

THE UNIVERSITY

President.—CHARLES HERBERT STOCKTON, LL.D.

Secretary.—RICHARD COBB, A.B.

Offices.—2023 G Street.

Treasurer.—CHARLES WENDELL HOLMES.

Office.—2024 G Street.

Librarian.—ALFRED FRANCIS WILLIAM SCHMIDT, A.M.

Office.—2023 G Street.

DEPARTMENT OF ARTS AND SCIENCES

Dean.—HOWARD LINCOLN HODGKINS, Ph.D.

Dean of Columbian College.—WILLIAM ALLEN WILBUR, A.M.

Dean of the College of Engineering and Mechanic Arts.—HOWARD LINCOLN HODGKINS, Ph.D.

Dean of Teachers College.—WILLIAM CARL RUEDIGER, Ph.D.

Offices.—2023 G Street.

Dean of the School of Graduate Studies.—CHARLES EDWARD MUNROE, Ph.D., LL.D.

Office.—1325 H Street.

DEPARTMENT OF LAW

Dean.—CHARLES NOBLE GREGORY, A.M., LL.D.

Secretary.—WILLIAM CABELL VAN VLECK, A.B., LL.B.

Office.—New Masonic Building.

DEPARTMENT OF MEDICINE

Dean.—WILLIAM CLINE BORDEN, M.D.

Librarian.—HARRY KNOX CRAIG, M.D.

Offices.—1325 H Street.

DEPARTMENT OF DENTISTRY

Dean.—JOHN ROLAND WALTON, D.D.S.

Office.—1325 H Street.

NATIONAL COLLEGE OF PHARMACY

Dean.—HENRY E. KALUSOWSKI, M.D., Phar.D.

Office.—808 I Street.

COLLEGE OF VETERINARY MEDICINE

Dean.—DAVID EASTBURN BUCKINGHAM, V.M.D.

Office.—2113 Fourteenth Street.

PRESIDENT'S COUNCIL

(Arranged in Departmental Groups)

CHARLES HERBERT STOCKTON, LL.D....PRESIDENT OF THE UNIVERSITY
 RICHARD COBB, A.B.....Secretary of the University
 CHARLES EDWARD MUNROE, Ph.D.,

Dean of the School of Graduate Studies

HERMANN SCHOENFELD, Ph.D., LL.D..... Professor of German
 WILLIAM ALLEN WILBUR, A.M.....Dean of Columbian College
 CHARLES CLINTON SWISHER, Ph.D., LL.D.....Professor of History
 GEORGE NEELY HENNING, A.M.....Professor of Romance Languages
 HOWARD LINCOLN HODGKINS, Ph.D.,

Dean of the College of Engineering and Mechanic Arts

OSCAR ALEXANDER MECHLIN, C.E..... Professor of Civil Engineering
 WILLIAM CARL RUEDIGER, Ph.D.....Dean of the Teachers College
 ALFRED FRANCIS WILLIAM SCHMIDT, A.M.....Professor of German
 CHARLES NOBLE GREGORY, A.M., LL.D.,

Dean of the Department of Law

JOHN PAUL EARNEST, A.M., LL.M..... Professor of Law
 HENRY CRAIG JONES, A.B., LL.B..... Assistant Professor of Law
 WILLIAM CLINE BORDEN, M.D.... Dean of the Department of Medicine
 SHEPHERD IVORY FRANZ, Ph.D..... Professor of Physiology
 JOHN ROLAND WALTON, D.D.S.... Dean of the Department of Dentistry
 HENRY CLAY THOMPSON, D.D.S..... Professor of Operative Dentistry
 HENRY E. KALUSOWSKI, Ph.D.,

Dean of the National College of Pharmacy

DAVID EASTBURN BUCKINGHAM, V.M.D.,

Dean of the College of Veterinary Medicine

COMMITTEES OF THE PRESIDENT'S COUNCIL

Catalogue and Other Publications.—The President, the Secretary, Professors HODGKINS, WILBUR, and SWISHER.

Admissions.—Professors WILBUR, MUNROE, and RUEDIGER.

Schedule.—Professors HENNING, MECHLIN, and RUEDIGER.

Library.—Professors SCHOENFELD, VEDITZ, the Librarian.

Student Organizations.—Professors RUEDIGER, HENNING, and JONES.

Debating.—Professors VEDITZ; Messrs. C. C. ROSE and W. R. FITCH.

UNIVERSITY MEMBERS OF FACULTIES AND TEACHING STAFF*

(Arranged with the exception of the President, in groups, in the order
of appointment.)

CHARLES HERBERT STOCKTON, LL.D., PRESIDENT OF THE UNIVERSITY

PROFESSORS

J. FORD THOMPSON, M.D., Professor of Surgery, Emeritus
ALBERT FREEMAN AFRICANUS KING, A.M., M.D., LL.D.,
Professor of Obstetrics and Dean Emeritus of the Faculty of Medicine
THEODORE NICHOLAS GILL, M.D., Ph.D., LL.D.,
Professor of Zoology, Emeritus
GEORGE NICHOLAS ACKER, A.M., M.D.,
Professor of Pediatrics and Clinical Professor of Medicine
HOWARD LINCOLN HODGKINS, Ph.D., Dean of the Department of
Arts and Sciences, Dean of the College of Engineering
and Mechanic Arts, and Professor of Mathematics
HENRY CRÈCY YARROW, M.D., Professor of Dermatology, Emeritus
DANIEL KERFOOT SHUTE, A.B., M.D.,
Professor of Neuro-Anatomy, and Clinical Professor of Ophthalmology
HENRY CLAY THOMPSON, D.D.S., Professor of Operative Dentistry
HERMANN SCHOENFELD, Ph.D., LL.D., Professor of German
STERLING RUFFIN, M.D., Professor of Medicine
CHARLES EDWARD MUNROE, Ph.D., LL.D.,
Dean of the School of Graduate Studies and Professor of Chemistry
GEORGE PERKINS MERRILL, Ph.D., Professor of Geology and Mineralogy
CHARLES WILLIAMSON RICHARDSON, M.D.,
Professor of Laryngology, Rhinology, and Otology
FRANK WIGGLESWORTH CLARK, Sc.D., Professor of Mineral Chemistry
HARVEY WASHINGTON WILEY, M.D., Ph.D., LL.D.,
Professor of Agricultural Chemistry (*absent during 1912-13*)
MELVILLE CHURCH, LL.M., Professor of the Law of Patents
WILLIAM ALLEN WILBUR, A.M.,
Dean of Columbian College and Professor of English
JOHN WESLEY BOVÉE, M.D., Professor of Gynecology
THOMAS ASH CLAYTON, M.D., Clinical Professor of Medicine
AURELIUS RIVES SHANDS, M.D., Professor of Orthopedic Surgery

* NOTE.—In many instances members of the Teaching Staff give only part time to the University. For the names of the members of the Faculties and Teaching Staff of the Associated Colleges, see Part III of this catalogue.

- CHARLES CLINTON SWISHER, Ph.D., LL.D..... Professor of History
 RANDOLPH BRYAN CARMICHAEL, M.D..... Professor of Dermatology
 FRANCIS RANDALL HAGNER, M.D.,
 Professor of Genito-Urinary Surgery and Venereal Diseases
 WALTER COLLINS CLEPHANE, LL.M..... Professor of Law
 MITCHELL CARROLL, Ph.D..... Professor of Greek and the History of Art
 PAUL BARTSCH, Ph.D..... Professor of Zoology
 EDWIN CHARLES BRANDENBURG, LL.M..... Professor of Law
 ARTHUR PETER, LL.B..... Professor of Law
 WILLIAM CREIGHTON WOODWARD, LL.M., M.D.,
 Professor of Medical Jurisprudence
 ALBERT LIVINGSTON STAVELY, M.D..... Clinical Professor of Gynecology
 GEORGE NEELY HENNING, A.M..... Professor of Romance Languages
 PERCY ASH, S.B., C.E..... Professor of Architecture
 JOHN PAUL EARNEST, A.M., LL.M..... Professor of Law
 JOHN ROLAND WALTON, D.D.S..... Dean of the Dental School and
 Professor of Prosthetic Dentistry and Orthodontia
 WILLIAM ALANSON WHITE, M.D.,
 Professor of Psychiatry, and Clinical Professor of Neurology
 CHARLES WILLIAM AUGUST VEDITZ, LL.B., Ph.D., Acting Dean of the
 College of the Political Sciences (1912-13), Professor of Sociology
 ALBERT BURNLEY BIBB..... Professor of Architecture
 GEORGE MILLER STERNBERG, M.D., LL.D.,
 Professor of Preventive Medicine
 ASAPH HALL, JR., Ph.D..... Professor of Astronomy
 ARTHUR AUGUSTIN SNYDER, M.D..... Clinical Professor of Surgery
 ALBERT MANN, Ph.D..... Professor of Botany
 SHEPHERD IVORY FRANZ, Ph.D..... Professor of Physiology
 CHARLES SIDNEY SMITH, Ph.D..... Professor of Greek and Latin
 WENDELL PHILIPS STAFFORD, A.M., LL.D..... Professor of Law
 WILLIAM CLINE BORDEN, M.D.,
 Dean of the Medical Department and Professor of Surgery
 JOHN RYDER WELLINGTON, M.D..... Clinical Professor of Surgery
 CHARLES STANLEY WHITE, M.D.,
 Professor of Oral Surgery and Associate in Surgery
 DANIEL WEBSTER PRENTISS, M.D..... Professor of Hygiene
 WILLIAM KENNEDY BUTLER, A.M., M.D..... Professor of Ophthalmology
 FREDERICK FULLER RUSSELL, M.D.,
 Professor of Pathology and Bacteriology
 BUCKNER MAGILL RANDOLPH, M.D.,
 Professor of Materia Medica and Therapeutics
 LUTHER HALSEY REICHELDERFER, M.D..... Clinical Professor of Surgery
 JAMES DUDLEY MORGAN, A.B., M.D.,
 Clinical and Associate Professor of Medicine
 LOUIS ANATOLE LA GARDE, M.D..... Professor of Military Surgery
 WILLIAM CARL REUDIGER, Ph.D.,
 Dean of Teachers College, and Professor of Educational Psychology

- ALFRED FRANCIS WILLIAM SCHMIDT, A.M.,
Librarian and Professor of German
- WILLIS LUTHER MOORE, Sc.D., LL.D., Professor of Practical Meteorology
- WILLIAM JACKSON HUMPHREYS, C.E., Ph.D.,
Professor of Meteorological Physics
- MONTGOMERY EARL HIGGINS, M.D.,..... Professor of Tropical Diseases
- CHARLES NOBLE GREGORY, A.M., LL.D.,
Dean of the Department of Law and Professor of Law
- GIDEON BROWN MILLER, S.B., M.D.,... Clinical Professor of Gynecology
- MATTHEW KOLLIG, A.B., M.D.,..... Professor of Anatomy
- JULIAN MAYO CABELL, M.D.,..... Clinical Professor of Obstetrics
- EDWARD ELLIOTT RICHARDSON, M.D., Ph.D.,
Acting Professor of Philosophy
- GEORGE WASHINGTON LITTLEHALES, C.E., Professor of Nautical Science
- OSCAR BENWOOD HUNTER, M.D., Professor of Histology and Embryology
and Associate Professor of Anatomy
- EDWIN VIVIAN DUNSTAN, C.E.,..... Professor of Civil Engineering
- OSCAR ALEXANDER MECHLIN, C.E.,..... Professor of Civil Engineering

ASSOCIATE PROFESSORS

- NOBLE PRICE BARNES, M.D., Associate Professor of Materia Medica and
Therapeutics, and Clinical Associate in Medicine
- JOHN ROBERT DE FARGES, D.D.S.,..... Associate Professor of Dental
Metallurgy, Economics, Jurisprudence and Ethics
- HURON WILLIS LAWSON, S.M., M.D.,..... Associate Professor of Obstetrics
and Associate Obstetrician in Chief to
the University Hospital and Dispensary
- CHARLES TURK BASSETT, D.D.S.,
Associate Professor in Charge of Dental Infirmary
- ALLEN SCOTT WOLFE, D.D.S.,
Associate Professor of Crown and Bridge Work
- CADMUS LINDEN ODOR, D.D.S.,
Associate Professor of Operative Technics
- WILLIAM FRANCIS LAWRENCE, D.D.S.,
Associate Professor of Prosthetic Technics
- ARTHUR BARTON CRANE, D.D.S.,... Associate Professor of Oral Surgery
- D. DE WITT BEEKMAN, D.D.S.,
Associate Professor of Materia Medica and Therapeutics
- FRANK ADELBERT HORNA DAY, S.B., M.D.,
Associate Professor of Chemistry

ASSOCIATES

- JOHN BENJAMIN NICHOLS, M.D.,..... Associate in Medicine and Dietetics
- HARRY HAMPTON DONNALLY, A.M., M.D.,
Associate in Medicine and Clinical Associate in Pediatrics
- WILLIAM FRANCIS MATTINGLY SOWERS, A.B., M.D., Associate in Surgery

HENRY RANDALL ELLIOTT, M.D..... Associate in Physiology
 EDGAR PASQUAL COPELAND, M.D..... Clinical Associate in Pediatrics
 JOHN T. KELLEY, M.D..... Clinical Associate in Obstetrics
 WALTER ASHBY FRANKLAND, M.D..... Clinical Associate in Medicine
 J. LEWIS RIGGLES, M.D..... Associate in Gynecology
 WALTER WATKINS WILKINSON, M.D..... Associate in Morbid Anatomy
 FRANK LEECH, M.D..... Clinical Associate in Pediatrics
 WILLIAM CABELL MOORE, M.D..... Associate in Physical Diagnosis
 CHARLES AUGUSTUS SIMPSON, M.D..... Associate in Dermatology
 JOHN BRADFORD BRIGGS, S.B., M.D.,
 Associate in Bacteriology and Pathology

ASSISTANT PROFESSORS

NEVIL MONROE HOPKINS, Ph.D..... Assistant Professor of Chemistry
 EDWIN ALLSTON HILL, Ph.D..... Assistant Professor of Chemistry
 THOMAS MALCOLM PRICE, Ph.D..... Assistant Professor of Chemistry
 RAY SMITH BASSLER, Ph.D..... Assistant Professor of Geology
 PERLEY GILMAN NUTTING, Ph.D..... Assistant Professor of Physics
 JOHN WILMER LATIMER, LL.B..... Assistant Professor of Law
 OTIS DOW SWETT, LL.M., S.M..... Assistant Professor of Chemistry
 CHARLES WARD MORTIMER, S.B., M.E.,
 Assistant Professor of Electrical Engineering
 FRANK CHARLES STARR, S.B.... Assistant Professor of Civil Engineering
 BLAINE FREE MOORE, A.M..... Assistant Professor of Political Science
 EVERETT FRASER, A.B., LL.B..... Assistant Professor of Law
 HIRAM COLVER MCNEIL, Ph.D.,
 Assistant Professor of Physical Chemistry
 ROBERT RUSS KERN, A.B.,
 Assistant Professor of Economics and Sociology
 LEVI RUSSELL ALDEN, A.M..... Assistant Professor of History
 HENRY CRAIG JONES, A.B., LL.B..... Assistant Professor of Law
 MERTON LEROY FERSON, A.M., LL.B..... Assistant Professor of Law
 LESLIE CLEVELAND McNEMAR, A.B.,
 Assistant Professor of International Law (1912-13)
 ALBERT LEWIS HARRIS, B.S. in Arch.,
 Assistant Professor of Architecture
 RICHARD COBB, A.B.,
 Secretary of the University and Assistant Professor of English

LECTURERS AND INSTRUCTORS

EDWARD GRANT SEIBERT, M.D.,
 Instructor in Laryngology and Ophthalmology
 OSCAR PHELPS AUSTIN..... Lecturer on Commercial Geography
 FREDERICK EUGENE FOWLE, JR., S.B..... Lecturer on Astro-Physics
 WILLARD STANTON SMALL, Ph.D..... Lecturer on Education
 STEPHEN ELLIOTT KRAMER, S.B., A.M., Lecturer on Education (1912-13)

- JOHN LEE COULTER, A.M., Lecturer on Agricultural Economics (1912-13)
 EDWIN WILEY, Ph.D., Lecturer on English
 JESSE E. POPE, Ph.D., Lecturer on Agricultural Economics (1912-13)
 WALTER HIBBARD MERRILL, M.D., Instructor in Electro-Therapeutics
 OSCAR ADDISON MACK MCKIMMIE, M.D.,
 Instructor in Laryngology and Otology
 HOBART SOUTHWORTH DYE, M.D.,
 Instructor in Laryngology and Otology
 TRUMAN ABBE, M.D., Instructor in Genito-Urinary Surgery
 JOSEPH LAWN THOMPSON, M.D., Instructor in Medicine
 ALFRED GEISES BUHRMAN, Clerk of the Moot Court
 GEORGE MORTON CHURCHILL, A.M., Instructor in History (1912-13)
 VIRGIL B. JACKSON, M.D., Instructor in Gynecology
 EDMUND THOMAS MURDAUGH FRANKLIN, M.D., Instructor in Surgery
 WILLIAM J. FRENCH, M.D., Instructor in Pediatrics
 ARTHUR LEROY HUNT, M.D., Instructor in Anaesthesia
 CHARLES WILBUR HYDE, M.D., Instructor in Medicine and Anaesthesia
 JOHN WINSLOW TAYLOR, D.D.S., Instructor in Prosthetic Technics
 and Demonstrator in the Dental Infirmary
 ADAM KEMBLE, M.D., Instructor in Genito-Urinary Surgery
 HOMER GIFFORD FULLER, M.D.,
 Instructor in Genito-Urinary Surgery and Venereal Diseases
 CHARLES GARDNER SHOEMAKER, D.D.S.,
 Instructor in Operative Technics
 HENRY CISSEL YOUNG, D.D.S., Instructor in Prosthetic Technics and
 Demonstrator in the Dental Infirmary
 HERBERT CORNWELL HOPKINS, D.D.S., Lecturer on Orthodontia
 HAYNER HASKELL GORDON, Ph.D., Instructor in Mechanical Engineering
 ROBERT WILBUR MORSE, S.B., Instructor in Mechanical Engineering
 CLINE CHIPMAN, M.D., Instructor in Anaesthesia
 GEORGE HENRY SCHWINN, M.D., Instructor in Psychiatry and Neurology
 BENJAMIN RUSH LOGIE, M.D., Instructor in Neurology
 MARK RITTENHOUSE WOODWARD, E.E.,
 Instructor in Electrical Engineering
 ALBERT PERKINS TIBBETS, M.D., Instructor in Anatomy
 COURSEN BAXTER CONKLIN, M.D., Instructor in Medicine
 ALEXANDER YELVERTON PEYTON GARNETT, M.D.,
 Instructor in Obstetrics
 HARRY HYLAND KERR, M.D., Instructor in Operative Surgery
 HARRY GRANT HODGKINS, A.B., Instructor in Mathematics
 WILLIAM JOHNSTON MALLORY, M.D., Instructor in Medicine
 CAESARE LOUIS CONSTANTINI, D.D.S.,
 In Charge of Clinical Instruction in Dentistry
 ARTHUR DURDAN WEAKLEY, D.D.S., Clinical Instructor in Dentistry
 THOMAS LOCKE RUST, D.D.S., Clinical Instructor in Dentistry
 GEORGE BERTRAM ROPER MACDONALD, D.D.S.,
 Clinical Instructor in Dentistry

- WILLIAM CARL KILLINGER, D.D.S.... Clinical Instructor in Orthodontia
 MARK FLORUS FINLEY, D.D.S..... Clinical Instructor in Orthodontia
 ALEXANDER DUNNINGTON COBEY, D.D.S.,
 Clinical Instructor in Non-Cohesive Gold
 GEORGE MILLER SHARP, D.D.S..... Lecturer on Oral Prophylaxis
 Z. WILBUR ALDERMAN, D.D.S.,
 Clinical Instructor in Electro-Therapeutics
 ROBERT EDWIN LAYTON, D.D.S.... Clinical Instructor in Dentistry
 JULIA THECKLA MACMILLAN, M.S..... Instructor in Zoology
 WILLIAM WRIGHT FRASER, A.B., B.L..... Lecturer in Mathematics
 ALTON LEWIN KIBLER, Ph.D.. Instructor in Chemistry
 CHARLES EDWARD VAN OSTRAND, S.M..... Lecturer on Mechanics
 HARVEY LINCOLN CURTIS, Ph.D..... Lecturer on Physics
 ELIJAH WHITE TITUS, Phar.D., M.D.,
 Instructor in Physiology, Pharmacology, and Obstetrics
 FRANCIS MERRIMAN BARNES, Jr., M.D.,
 Instructor in Psychiatry and Neurology
 RALPH MICHELL LecomTE, M.D.,
 Instructor in Pathology and Bacteriology
 CARL LAWRENCE DAVIS, M.D..... Instructor in Anatomy
 WILLIAM CABELL VAN VLECK, A.B., LL.B..... Instructor in Law
 PHILIP ROGERS HOOTON Instructor in Architecture
 MARIETTA STOCKARD, Lecturer on the Teaching of Children's Literature
 DANIEL LE RAY BORDEN, M.D.... Instructor in Surgery and Gynecology
 FRANK RAY RUTTER, Ph.D... Lecturer on Commercial Policies (1912-13)
 WALTER DUVAL WEBB, M.D.. Instructor in Surgery
 ALBERT ELWOOD PAGAN, M.D..... Instructor in Gynecology
 ARTHUR DEERIN CALL, A.M. Lecturer on Elementary Education
 JAMES WALTER BERNHARD, D.D.S. Instructor in Crown and Bridge Work
 GEORGE TRAVER HARRINGTON, B.S. in Agri., B.S. in Chem.,
 Instructor in Botany
 ALBERTUS HUTCHINSON BALDWIN ... Lecturer on Commerce (1912-13)

ASSISTANTS AND DEMONSTRATORS

- MARION EDWYN HARRISON, D.D.S.,
 Demonstrator in the Dental Infirmary
 CHARLES CLARK AMMERMAN, M.D.,
 Assistant in Ophthalmology to the Dispensary
 MOSES WALTON HENDRY, A.B., LL.B..... Assistant in Greek
 EDWIN HENRY INGERSOLL, S.B..... Assistant in Chemistry
 WALTER EDGAR HANCOCK, A.B..... Assistant in Spanish
 HAROLD KEATS, A.B..... Assistant in History
 REBECCA SHERMAN ASHLEY..... Assistant in Archaeology
 HENRY ALBERT LEPPER..... Student Assistant in Chemistry
 JETER CARROLL BRADLEY,
 Student Assistant in Bacteriology and Pathology

TAYLOR CHASE..... Student Assistant in Physiology and Pharmacology
 SIDNEY CHARLES COUSINS,
 Student Assistant in Anatomy, Histology, and Embryology
 GEORGE WASHINGTON PHILLIPS.. . . . Student Assistant in Chemistry
 RAYMOND CORNWELL SIMPSON..... Student Assistant in Chemistry
 GRIFFIN GUY FRAZIER..... Student Assistant in Chemistry

EDUCATIONAL ORGANIZATION

The University comprises:

THE DEPARTMENT OF ARTS AND SCIENCES.

The School of Graduate Studies.
 Columbian College.
 The College of Engineering and Mechanic Arts.
 The Teachers College.

THE PROFESSIONAL DEPARTMENTS.

The Department of Law.
 The Department of Medicine.
 The Department of Dentistry.

THE ASSOCIATED COLLEGES.

National College of Pharmacy.
 The College of Veterinary Medicine.

ANNUAL COMMENCEMENT

The Annual Commencement is held on the Wednesday following the Wednesday nearest the first day of June. Students who have satisfied the requirements for degrees subsequent to the June Commencement may be awarded such degrees privately in October or at the Winter Convocation on February 22.

THE UNIVERSITY LIBRARY

The University Library comprises the Library of the Department of Arts and Sciences, the Law Library, and the Medical Library. It contains 46,663 volumes.

In addition to its general collections the Library of the Department of Arts and Sciences contains the library of the late Professor Richard Heinzel, of the University of Vienna, containing 7200 books and pamphlets in Germanic philology and literature, and cognate branches; the library of the late Professor Curt Wachsmuth, of the University of Leipzig, containing 7900 books and pamphlets in Greek and Roman literature, archaeology, and history; the Mount Vernon Alcove contain-

ing 4000 volumes in political history, international law, and the social sciences; and the divisional collections in engineering and mechanic arts and in education. It is open from 9 a.m. to 6.40 p.m.

The Law Library, containing 6000 volumes, is open from 9 a.m. to 10 p.m.

The Medical Library, containing 3000 volumes, is open from 9 a.m. to 10.30 p.m.

PRIVILEGES IN GOVERNMENTAL INSTITUTIONS OPEN TO UNIVERSITY STUDENTS

In order to promote research and the diffusion of knowledge, the Congress of the United States has made the scientific resources of the Government accessible to students under the terms of the following joint resolution, approved April 12, 1892:

"Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the facilities for research and illustration in the following and any other governmental collections now existing or hereafter to be established in the city of Washington for the promotion of knowledge shall be accessible, under such rules and restrictions as the officers in charge of each collection may prescribe, subject to such authority as is now or may hereafter be permitted by law, to the scientific investigators and to students of any institution of higher education now incorporated or hereafter to be incorporated under the laws of Congress or of the District of Columbia, to wit:

1. Of the Library of Congress.
2. Of the National Museum.
3. Of the Patent Office.
4. Of the Bureau of Education.
5. Of the Bureau of Ethnology.
6. Of the Army Medical Museum.
7. Of the Department of Agriculture.
8. Of the Fish Commission.
9. Of the Botanic Gardens.
10. Of the Coast and Geodetic Survey.
11. Of the Geological Survey.
12. Of the Naval Observatory."

PART II
DEPARTMENTS OF THE UNIVERSITY

DEPARTMENT OF ART AND SCIENCES

FACULTY

- CHARLES HERBERT STOCKTON, LL.D.... PRESIDENT OF THE UNIVERSITY
 HOWARD LINCOLN HODGKINS, Ph.D.,.... Dean, Dean of the College of
 Engineering and Mechanic Arts, and Professor of Mathematics
 *THEODORE NICHOLAS GILL, M.D., Ph.D., LL.D.,
 Professor of Zoology, Emeritus
 HERMANN SCHOENFELD, Ph.D., LL.D..... Professor of German
 CHARLES EDWARD MUNROE, Ph.D., LL.D.,
 Dean of the School of Graduate Studies and Professor of Chemistry
 *GEORGE PERKINS MERRILL, Ph.D.,
 Professor of Geology and Mineralogy
 *FRANK WIGGLESWORTH CLARKE, Sc.D... Professor of Mineral Chemistry
 *HARVEY WASHINGTON WILEY, M.D., Ph.D., LL.D.,
 Professor of Agricultural Chemistry (*absent during 1912-13*)
 WILLIAM ALLEN WILBUR, A.M.,
 Dean of Columbian College and Professor of English
 CHARLES CLINTON SWISHER, Ph.D., LL.D.... Professor of History
 *MITCHELL CARROLL, Ph.D., Professor of Greek and the History of Art
 *PAUL BARTSCH, Ph.D..... Professor of Zoology
 GEORGE NEELY HENNING, A.M..... Professor of Romance Languages
 PERCY ASH, S.B., C.E..... Professor of Architecture
 CHARLES WILLIAM AUGUST VEDITZ, LL.B., Ph.D.... Acting Dean of the
 College of the Political Sciences (1912-13) and Professor of Sociology
 ALBERT BURNLEY BIBB... Professor of Architecture
 *GEORGE MILLER STERNBERG, M.D., LL.D.,
 Professor of Preventive Medicine
 *ASAPH HALL, JR., Ph.D..... Professor of Astronomy
 *ALBERT MANN, Ph.D..... Professor of Botany
 CHARLES SIDNEY SMITH, Ph.D..... Professor of Greek and Latin
 WILLIAM CARL RUEDIGER, Ph.D.,
 Dean of Teachers College and Professor of Educational Psychology
 ALFRED FRANCIS WILLIAM SCHMIDT, A.M.... Professor of German
 *WILLIS LUTHER MOORE, Sc.D., LL.D.,
 Professor of Practical Meteorology
 *WILLIAM JACKSON HUMPHREYS, C.E., Ph.D.,
 Professor of Meteorological Physics
 CHARLES NOBLE GREGORY, A.M., LL.D..... Professor of Law

* These professors are specialists who give only part of their time to the University.

EDWARD ELLIOTT RICHARDSON, M.D., Ph.D.,	Acting Professor of Philosophy
*GEORGE WASHINGTON LITTLEHALES, C.E.,	Professor of Nautical Science
EDWIN VIVIAN DUNSTAN, C.E.,	Professor of Civil Engineering
OSCAR ALEXANDER MECHLIN, C.E.,	Professor of Civil Engineering
NEVIL MONROE HOPKINS, Ph.D.,	Assistant Professor of Chemistry
EDWIN ALLSTON HILL, Ph.D.,	Assistant Professor of Chemistry
THOMAS MALCOLM PRICE, Ph.D.,	Assistant Professor of Chemistry
RAY SMITH BASSLER, Ph.D.,	Assistant Professor of Geology
PERLEY GILMAN NUTTING, Ph.D.,	Assistant Professor of Physics
JOHN WILMER LATIMER, LL.B.,	Assistant Professor of Law (1912-13)
OTIS DOW SWETT, LL.M., S.M.,	Assistant Professor of Chemistry
CHARLES WARD MORTIMER, S.B., M.E.,	Assistant Professor of Electrical Engineering
FRANK CHARLES STARR, S.B.,	Assistant Professor of Civil Engineering
BLAINE FREE MOORE, A.M.,	Assistant Professor of Political Science
HIRAM COLVER MCNEIL, Ph.D.,	Assistant Professor of Physical Chemistry
ROBERT RUSS KERN, A.B.,	Assistant Professor of Economics and Sociology
LEVI RUSSELL ALDEN, A.M.,	Assistant Professor of History
LESLIE CLEVELAND MCNEMAR, A.B.,	Assistant Professor of International Law (1912-13)
ALBERT LEWIS HARRIS, B.S. in Arch.,	Assistant Professor of Architecture
RICHARD COBB, A.B.,	Assistant Professor of English
OSCAR PHELPS AUSTIN,	Lecturer on Commercial Geography
FREDERICK EUGENE FOWLE, JR., S.B.,	Lecturer on Astro-Physics
WILLIAM STANTON SMALL, Ph.D.,	Lecturer on Education
STEPHEN ELLIOTT KRAMER, S.B., A.M.,	Lecturer on Education (1912-13)
JOHN LEE COULTER, A.M.,	Lecturer on Agricultural Economics (1912-13)
EDWIN WILEY, Ph.D.,	Lecturer on English
JESSE E. POPE, Ph.D.,	Lecturer on Agricultural Economics (1912-13)
GEORGE MORTON CHURCHILL, A.M.,	Instructor in History (1912-13)
HAYNER HASKELL GORDON, Ph.D.,	Instructor in Mechanical Engineering
ROBERT WILBUR MORSE, S.B.,	Instructor in Mechanical Engineering
MARK RITTENHOUSE WOODWARD, E.E.,	Instructor in Electrical Engineering
HARRY GRANT HODGKINS, A.B.,	Instructor in Mathematics
JULIA THECKLA MACMILLAN, S.M.,	Instructor in Zoology
WILLIAM WRIGHT FRASER, A.B., B.L.,	Lecturer in Mathematics
ALTON LEWIN KIBLER, Ph.D.,	Instructor in Chemistry

* These professors are specialists who give only part of their time to the University.

CHARLES EDWIN VAN OSTRAND, S.M.	Lecturer on Mechanics
HARVEY LINCOLN CURTIS, Ph.D.	Lecturer on Physics
PHILIP ROGERS HOOTON	Instructor in Architecture
MARIETTA STOCKARD	Lecturer on the Teaching of Children's Literature
FRANK RAY RUTTER, Ph.D.	Lecturer on Commercial Policies (1912-13)
ARTHUR DEERIN CALL, A.M.	Lecturer on Elementary Education
GEORGE TRAVER HARRINGTON, B.S. in Agr., B.S. in Chem.,	Instructor in Botany
ALBERTUS HUTCHINSON BALDWIN	Lecturer on Commerce (1912-13)

Faculty of the School of Graduate Studies

President Stockton, Dean Munroe, Professors Gill, Hodgkins, Schoenfeld, Merrill, Clarke, Wiley, Wilbur, Swisher, Carroll, Bartsch, Henning, Ash, Sternberg, Hall, Mann, Smith, Price, Ruediger, Schmidt, Moore, Humphreys, Gregory, Richardson, Littlehales, Dunstan, Mechlin, Assistant Professors Hopkins, Hill, Bassler, Nutting, Mortimer, McNeil, Kern, Alden; Messrs. Wiley, Van Ostrand, Curtis.

Faculty of Columbian College

President Stockton, Dean Wilbur, Professors Hodgkins, Schoenfeld, Munroe, Merrill, Swisher, Bartsch, Henning, Smith, Schmidt, Richardson; Assistant Professors Bassler, Swett, Moore, Kern, Cobb; Mr. Woodward, Miss Macmillan, Mr. Hancock, Mr. Harrington.

Faculty of College of Engineering and Mechanic Arts

President Stockton, Dean Hodgkins, Professors Schoenfeld, Munroe, Merrill, Wilbur, Henning, Schmidt, Ash, Bibb, Dunstan, Mechlin; Assistant Professors Swett, Starr, Mortimer, Harris; Messrs. Gordon, Morse, Woodward.

Faculty of Teachers College

President Stockton, Dean Ruediger, Professors Hodgkins, Schoenfeld, Munroe, Wilbur, Swisher, Bartsch, Henning, Smith, Schmidt, Richardson; Assistant Professors Moore, Kern, Cobb; Messrs. Small, Call; Miss Stockard.

SCHOOL OF GRADUATE STUDIES

HIGHER DEGREES

The higher degrees conferred in course by the University in this Division of the Department of Arts and Sciences are Master of Arts (A.M.), Master of Science (S.M.), Civil Engineer (C.E.), Electrical Engineer (E.E.), Mechanical Engineer (M.E.), and Doctor of Philosophy (Ph.D.).

ADMISSION

Candidates for admission to courses for higher degrees must make application to the Dean of the School of Graduate Studies on application blanks, which may be obtained of him or of the Secretary of the University. Candidates must present the diplomas they hold, or certificates that they have received such diplomas, together with catalogues of the institutions from which they hold their degrees and certificates of their course of study at such institutions. All such applications should be accompanied by testimonials as to character and scholarship.

DEGREES OF MASTER OF ARTS AND MASTER OF SCIENCE

To be admitted to candidacy for the Master's degree a student must have completed a liberal undergraduate course of study such as is required by colleges of good standing antecedent to the baccalaureate degree. The Faculty of Graduate Studies reserves the right to decide in all cases whether the antecedent training fulfills the requirements. Moreover, the course of study pursued must have been such as to qualify the candidates for pursuing the subjects chosen for the Master's or other higher degree sought. In seeking admission the applicant must state whether he desires to obtain the Specialist degree or the Liberal Culture degree.

The Specialist degree is designed for students who propose to proceed toward the Doctor of Philosophy degree. Such candidates are required to complete one major and two minor subjects selected from properly correlated University subjects approved by the Faculty upon recommendation of the professors in charge and to present a satisfactory thesis. Only one of the minor topics may be selected from the University subject which includes the major topic. Work for which this degree has been awarded may be credited as one year of work toward the Doctor of Philosophy degree, provided that it be in the same field of work.

The Liberal Culture degree is designed for students who do not intend to specialize in their work. Such candidates are required to complete three full courses of studies, of two or three hours each, distributed among three University subjects, not more than six hours of which shall be given to any one subject. These subjects must have the approval of the Faculty on the recommendation of the professors in charge. The candidate must also present a thesis in the field to which the major subject belongs.

A candidate for a Master's degree must pass at least one full year in residence and study at this University, and no work done in satisfaction of the requirements for the Bachelor's degree shall be counted again for a higher degree.

HIGHER DEGREES IN ENGINEERING

To be admitted to candidacy for higher degrees in Engineering a student must have completed a liberal undergraduate course of study

such as is required by colleges of good standing antecedent to the baccalaureate degree in Engineering, and of such a character as to fit him to pursue to advantage the study of advanced engineering topics. The Faculty of Graduate Studies reserves the right to decide in all cases whether the antecedent training fulfills the requirements. Moreover, the courses of study pursued for the Bachelor's degree must be approved by the Faculty as qualifying the candidate for pursuing the chosen line of study for the degree sought.

A candidate for a degree in Engineering shall pass at least one full year of residence and study at this University, sustain satisfactory examinations on the studies pursued, and present an acceptable thesis, together with a bibliography. Three full courses is the minimum required as constituting a full year's work. The courses chosen must be passed upon by the Faculty of Graduate Studies and have the approval of the professors under whom they are to be taken.

DEGREE OF DOCTOR OF PHILOSOPHY

The degree of Doctor of Philosophy is conferred upon a student who has pursued specialized courses in University Subjects, has engaged in original research under university auspices for a period of not less than three years, has submitted an acceptable thesis, and has met all the requirements prescribed. The degree is given for high attainments and proved ability to do research work in some special branch of knowledge, as determined by the various tests applied.

Before a student can be admitted to candidacy for this degree he must give evidence that he has completed a liberal undergraduate course of academic study such as is required by colleges of good standing antecedent to the baccalaureate degree, and of such a character as to fit him to pursue to advantage researches in the field chosen for his graduate work. The Faculty of Graduate Studies reserves the right to decide in all cases whether the antecedent training fulfills the requirements. The applicant may be credited with graduate work done at other universities, provided such work is shown to be of grade similar to that required here, but one year, preferably the last, must be spent in residence at this University and the other requirements of the degree as prescribed must be fulfilled.

The candidate for the Doctor's degree shall offer three topics from the University Subjects—one major and two collateral minor studies, one of which minors may be in the subject which includes the major topic—the combination to be approved by the Faculty of Graduate Studies. These must be pursued under the guidance of a committee consisting of the professors in charge of the University Subjects in which the studies are pursued, with the professor in the major subject as chairman. This committee will determine his division of time, study, and research among the major and minor topics, but in general the major topic should be pursued during the whole time devoted to graduate work, and each

minor topic during at least one year. The candidate shall pass satisfactory examinations upon the three subjects selected. He must satisfy the Faculty that he can read understandingly in the original, French and German works pertaining to his special field. In order to graduate the candidate must possess a broad acquaintance with his major subject and he must present a thesis upon some topic approved by the professor in charge of his major subject, which shall be a contribution to knowledge and which shall be accompanied by an adequate bibliography.

EXAMINATIONS

Candidates must pass written examinations upon all their topics. The examinations upon the minor topics may be taken at the close of the respective years in which these topics are completed, or later, at the discretion of the examiner. The final written examination on the major topic shall cover the candidate's entire university work, and shall be given when the professor of that subject is satisfied that the student has taken sufficient work to warrant such an examination being taken. If a candidate has satisfactorily passed his final written examination, he may be permitted to complete his thesis away from the University.

DEFENSE OF THE THESIS

Before a candidate can be recommended to the Board of Trustees for the Doctor of Philosophy degree, he must have successfully defended his thesis in public before a Board of Experts not officially connected with the University. Before the candidate can be permitted to undertake the defense of his thesis, the thesis must have been favorably reported on and recommended for defense by the professor having supervision over the candidate's major topic, and by a co-referee appointed from the Faculty of Graduate Studies.

The subjects from which the candidate's selection may be made, as the Faculty may determine in each case, are as follows:

Agriculture, Applied Mathematics, Architecture, Astronomy, Astrophysics, Bacteriology, Botany, Chemistry, Classical Archaeology, Economics, Education, Civil Engineering, Electrical Engineering, Hydraulic Engineering, Mechanical Engineering, English, Ethics, Geology and Mineralogy, Germanic Languages and Literature, Greek Language and Literature, Histology and Embryology, History, History of Art, International Law and Diplomacy, Latin Language and Literature, Law, Mathematics, Meteorology, Pathology, Philosophy, Physics, Physiology and Pharmacology, Political Sciences, Preventive Medicine, Psychology, Romance Language and Literature, Semitic Languages and Literature, Sociology, Zoology.

REGULATIONS REGARDING THESES

Theses must be presented to the Dean not later than May 1 for graduation in June. They must be typewritten on official thesis paper, which

may be obtained from the Treasurer of the University. The thesis will be presented by the Dean to the Chairman of the Committee on the candidate and the co-referee appointed from and by the Faculty for examination as to its merits when, on a favorable report by them, it may be defended in the Public Disputation. After their acceptance, theses, with their accompanying drawings, are the property of the University, and must be deposited in the University archives, but the authors of them are permitted to make copies. The candidate shall arrange, to the satisfaction of the Faculty, to print his thesis under the supervision of the professor in charge of his major subject, within one year after the degree is granted, and he shall present one hundred copies to the University, to be distributed among institutions of learning.

DOCTORATE DISPUTATIONS

The Twenty-second Doctorate Disputation was held publicly in University Hall, February 10, 1913. The thesis that was successfully defended, the candidate and the members of the board of experts were as follows:

Thesis.—Treeshrews: An Account of the Mammalian Family Tupaiidae. By MARCUS WARD LYON, JR., Ph.B., 1897, S.M., Brown University; 1900; and M.D., 1902, The Columbian University. Before Dr. C. HART MERRIAM, Biologist, Harriman Foundation; Dr. LEONHARD STEJNEGER, Head Curator of Biology, U. S. National Museum; Dr. T. S. PALMER, Assistant Chief, U. S. Biological Survey. Professor PAUL BARTSCH, Ph.D., presiding.

THE COLLEGES

The College session of 1913-14 begins Wednesday, September 24, 1913. The Colleges are open to men and women.

ADMISSION

Every applicant for admission is required to present a testimonial of good character and also a certificate of standing and regular dismissal from the school or college which he has attended or from the tutor with whom he has studied.

Candidates for admission to the Freshman Class may present certificates of admission or take an examination in the required subjects. Certificates, in lieu of any or all examinations, will be accepted from schools whose work is attested by well-prepared students admitted to the University in previous years, and from schools that present evidence of affording adequate preparation in the required subjects. The Secretary of the University will, on application, furnish certificate blanks to the principals of such accredited schools.

The certificates of the College Entrance Examination Board will be accepted.

The requirement for admission is a four-year high-school course, or its equivalent, amounting to fifteen "units." For prescribed studies see the specifications of each college.

A unit represents a year's study in any subject in a secondary school, constituting approximately a quarter of a full year's work.

ENTRANCE EXAMINATIONS

The regular examinations for admission are held in May.

The following is the schedule for 1913:

Monday, May 26, 1913

Elementary Latin.....	9.00-11.00
Plane Geometry.....	11.00- 1.00
Physics.....	2.00- 4.00
Greek.....	2.00- 5.00

Tuesday, May 27

Elementary Algebra.....	9.00-11.00
Elementary French.....	11.00- 1.00
Elementary German.....	2.00- 4.00
Ancient History.....	4.00- 6.00

Wednesday, May 28

Plane Trigonometry.....	9.00-11.00
Advanced French, Advanced German.....	11.00- 1.00
English.....	2.00- 5.00

Thursday, May 29

Advanced Algebra.....	9.00-11.00
Solid Geometry.....	11.00- 1.00
Chemistry; Advanced Latin.....	2.00- 4.00

Subjects offered for admission, but not named in the schedule of examinations, will be arranged for as occasion arises.

Unless admitted by certificate, every undergraduate candidate for a degree is required to pass an examination.

Candidates from the Washington high schools for the Kendall and the University Scholarships will be examined on nine and one-half units. These units upon which the examination will be given are the following: the specified subjects—English (three units), Mathematics (two and one-half units), and one other language (two units); the remaining two units may be in language, history, mathematics, physics, chemistry, biology—as the candidate shall elect. The remainder of the fifteen units must be certified from the high schools.

DEFINITION OF REQUIREMENTS

English

(Three units)

The requirements in English are those recommended by the Conference on Uniform Entrance Requirements in English. These recommendations are as follows:

Preparation in English has two main objects: (1) command of correct and clear English, spoken and written; (2) ability to read with accuracy, intelligence, and appreciation.

English Grammar and Composition

The first object requires instruction in grammar and composition. English grammar should ordinarily be reviewed in the secondary school, and correct spelling and grammatical accuracy should be rigorously exacted in connection with all written work during the four years. The principles of English composition governing punctuation, the use of words, paragraphs, and the different kinds of whole composition, including letter-writing, should be thoroughly mastered; and practice in composition, oral as well as written, should extend throughout the secondary school period. Written exercises may well comprise narration, description, and easy exposition and argument based upon simple outlines. It is advisable that subjects for this work be taken from the student's personal experience, general knowledge, and studies other than English, as well as from his reading in literature. Finally, special instruction in language and composition should be accompanied by concerted effort of teachers in all branches to cultivate in the student the habit of using good English in his recitations and various exercises, whether oral or written.

Literature

The second object is sought by means of two lists of books, headed respectively, *reading* and *study*, from which may be framed a progressive course in literature covering four years. In connection with both lists the student should be trained in reading aloud and be encouraged to commit to memory some of the more notable passages, both in verse and in prose. As an aid to literary appreciation he is further advised to acquaint himself with the most important facts in the lives of the authors whose works he reads and with their place in literary history.

1. *Reading*.—The aim of this course is to foster in the student the habit of intelligent reading and to develop a taste for good literature by giving him a first-hand knowledge of some of its best specimens. He should read the books carefully, but his attention should not be so fixed upon details that he fails to appreciate the main purpose and charm of what he reads.

With a view to large freedom of choice, the books provided for read-

ing are arranged in the following groups, from which at least ten units* are to be selected, two from each group:

a. The Old Testament, comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings; and Daniel; together with the books of Ruth and Esther; the Odyssey, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII; the Iliad, with the omission, if desired, of Books XI, XIII, XIV, XV, XVII, XXI; Virgil's *Æneid*. The Odyssey, Iliad, and *Æneid* should be read in English translations of recognized literary excellence.

For any unit of this group a unit from any other group may be substituted.

b. Shakespeare's *Merchant of Venice*; *Midsummer Night's Dream*; *As You Like It*; *Twelfth Night*; *Henry the Fifth*; *Julius Caesar*.

c. Defoe's *Robinson Crusoe*, Part I; Goldsmith's *Vicar of Wakefield*; either Scott's *Ivanhoe* or Scott's *Quentin Durward*; Hawthorne's *House of the Seven Gables*; either Dickens' *David Copperfield* or Dickens' *Tale of Two Cities*; Thackeray's *Henry Esmond*; Mrs. Gaskell's *Cranford*; George Eliot's *Silas Marner*; Stevenson's *Treasure Island*.

d. Bunyan's *Pilgrim's Progress*, Part I; The Sir Roger de Coverley Papers in the *Spectator*; Franklin's *Autobiography* (condensed); Irving's *Sketch Book*; Macaulay's *Essays on Lord Clive and Warren Hastings*; Thackeray's *English Humourists*; Selections from Lincoln, including at least the two Inaugurals, the Speeches in Independence Hall and at Gettysburg, the Last Public Address, and Letter to Horace Greeley, along with a brief memoir or estimate; Parkman's *Oregon Trail*; either Thoreau's *Walden* or Huxley's *Autobiography* and selections from *Lay Sermons*, including the addresses on *Improving Natural Knowledge*, *A Liberal Education*, and *A Piece of Chalk*; Stevenson's *Inland Voyage and Travels with a Donkey*.

e. Palgrave's *Golden Treasury* (First Series), Books II and III, with especial attention to Dryden, Collins, Gray, Cowper, and Burns; Gray's *Elegy in a Country Churchyard* and Goldsmith's *Deserted Village*; Coleridge's *Ancient Mariner* and Lowell's *Vision of Sir Launfal*; Scott's *Lady of the Lake*; Byron's *Childe Harold*, Canto IV, and *Prisoner of Chillon*; Palgrave's *Golden Treasury* (First Series), Book IV, with especial attention to Wordsworth, Keats, and Shelley; Poe's *Raven*, Longfellow's *Courtship of Miles Standish*, and Whittier's *Snow Bound*; Macaulay's *Lays of Ancient Rome* and Arnold's *Sobrab and Rustum*; Tennyson's *Gareth and Lynette*, *Lancelot and Elaine*, and the *Passing of Arthur*; Browning's *Cavalier Tunes*, *The Lost Leader*, *How They Brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the Sea*, *Incident of the French Camp*, *Hervé Riel*, *Pheidippides*, *My Last Duchess*, *Up at a Villa—Down in the City*.

2. *Study*.—This part of the requirement is intended as a natural and logical continuation of the student's earlier reading, with greater stress

* Each unit is set off by semicolons.

laid upon form and style, the exact meaning of words and phrases, and the understanding of allusions. For this close reading are provided a play, a group of poems, an oration, and an essay, as follows:

Shakespeare's *Macbeth*; Milton's *L'Allegro*, *Il Penseroso*, and *Comus*; either Burke's *Speech on Conciliation with America* or both Washington's *Farewell Address* and Webster's *First Bunker Hill Oration*; either Macaulay's *Life of Johnson* or Carlyle's *Essay on Burns*.

Examination

However accurate in subject-matter, no paper will be considered satisfactory if seriously defective in punctuation, spelling, or other essentials of good usage.

The first part of the examination will be upon ten units chosen in accordance with the plan described earlier, from the lists headed *reading*; and it may include also questions upon grammar and the simpler principles of rhetoric, and a short composition upon some topic drawn from the student's general knowledge or experience. On the books prescribed for reading, the form of the examination will usually be the writing of short paragraphs on several topics which the candidate may choose out of a considerable number. These topics will involve such knowledge and appreciation of plot, character-development, and other qualities of style and treatment as may be fairly expected of boys and girls. In grammar and rhetoric, the candidate may be asked specific questions upon the practical essentials of these studies, such as the relation of the various parts of a sentence to one another, the construction of individual words in a sentence of reasonable difficulty, and those good usages of modern English which one should know in distinction from current errors.

The second part of the examination will include composition and those books comprised in the list headed *study*. The test in composition will consist of one or more essays, developing a theme through several paragraphs; the subjects will be drawn from the books prescribed for *study*, from the candidate's other studies, and from his personal knowledge and experience quite apart from reading. For this purpose the examiner will provide several subjects, perhaps five or six, from which the candidate may make his own selections. The test on the books prescribed for study will consist of questions upon their content, form, and structure, and upon the meaning of such words, phrases, and allusions as may be necessary to an understanding of the works and an appreciation of their salient qualities of style. General questions may also be asked concerning the lives of the authors, their other works, and the periods of literary history to which they belong.

Latin

Elementary (two units)

- a. I. Latin Grammar: The inflections; the simpler rules for composition and derivation of words; syntax of cases and the verb; structure

of sentences in general, with particular regard to relative and conditional sentences, indirect discourse, and the subjunctive.

II. Latin Prose Composition: Translation into Latin of detached sentences and easy continuous prose based on Caesar.

b. Caesar: Any four books of the Gallic War, preferably the first four.

Advanced (two units)

a. Cicero: Any six orations from the following list, but preferably the first six mentioned. The four orations against Catiline, Archias, the Manilian Law, Marcellus, Roscius, Milo, Sestius, Ligarius, the Fourteenth Philippic.

b. Virgil: The first six books of *Aeneid*.

c. Advanced Prose Composition, consisting of continuous prose of moderate difficulty based on Cicero.

d. Sight Translation, based on prose of no greater difficulty than the easier portions of Cicero's orations.

Greek

Elementary (two units)

a. I. Greek Grammar: The topics for the examination in Greek grammar are similar to those detailed under Latin grammar.

II. Greek Prose Composition, consisting principally of detached sentences to test the candidate's knowledge of grammatical constructions. The examination in grammar and prose composition will be based on the first two books of Xenophon's *Anabasis*.

b. Xenophon: The first four books of the *Anabasis*.

Advanced (one unit)

a. Homer: The first three books of the *Iliad* (omitting II, 494, to end).

b. Sight Translation, based on prose of no greater difficulty than Xenophon's *Anabasis*.

French

Elementary (two units)

Candidates in Elementary French must have a good knowledge of the essential parts of grammar, with stress on pronouns and on regular verbs and the common irregular verbs. They must know the principles of pronunciation; must be able to translate simple English sentences or easy connected prose into French, and to translate accurately ordinary modern French prose. Candidates must have translated not less than 450 duodecimo pages by at least four different authors, of which amount at least one-third must be history. Candidates must have had a two-years' course of five periods per week.

Advanced (two units)

Candidates in advanced French must have partly translated, partly read, in addition to the requirements for Elementary French, at least 1000 pages of difficult French of several different authors, including history, fiction, drama, and poetry. Candidates must have had a four-years' course of five periods per week.

Fraser and Squair's French Grammar or Grandgent's Essentials of French Grammar is recommended.

Spanish

(Two units)

Candidates in Spanish must have a good knowledge of grammar, including syntax, with stress on pronouns and verbs, regular and irregular. They must know the principles of pronunciation. They must be able to translate simple English sentences or easy connected prose into Spanish, and to translate accurately fairly difficult modern Spanish prose and verse. Candidates must have translated not less than 500 pages by at least four different authors, of which amount at least one-fourth must be history or drama. Candidates must have had a two-years' course of five periods per week.

German

Elementary (two units)

Candidates in Elementary German must have had a two-years' course of five periods a week. They must be able to read fluently at sight and to translate easy narrative prose and poetry. An accurate knowledge of an elementary German grammar is requisite, to be tested by the translation into German of some fifteen sentences. About 300 pages of graduated narrative prose, one short play, and such poetry as is usually found in a First Reader will be considered an adequate preparation.

Advanced (two units)

Candidates in Advanced German must have had a four-years' course of five periods a week. They should be well trained in the syntactical laws of the language, have read about 800 pages of good literature in prose, preferably such prose works as are given in the Report of the Committee of Twelve of the Modern Language Association, and poetry, especially dramas by Lessing, Schiller, and Goethe, and studied an elementary history of German literature. German composition should comprise a number of short themes upon assigned historical or literary topics, lives of the authors read, etc.

History

In this subject special importance is attached to preparation in geography.

Ancient (one unit)

a. Greek History, through the Roman Conquest; as much as is contained in Myer's, Bottsford's, or West's History of Greece.

b. Roman History; as much as is contained in Allen's, Bottsford's or West's History of the Roman People.

Mediaeval and Modern European History (one unit)

As much as is contained in Myer's History of Mediaeval and Modern Europe.

English History (one unit)

As much as is contained in Larned's or Cheyney's History of England.

American History with the Elements of Civil Government (one unit)

As much as is contained in Fiske's History of the United States, and Fiske's Civil Government.

Mathematics

Elementary Algebra (one and one-half units)

I. Algebra to Quadratics: The four fundamental operations for rational algebraic expressions, factoring, highest common factor, lowest common multiple, complex fractions, the solution of equations of the first degree containing one or more unknown quantities, radicals, including the extraction of the square root of polynomials and numbers, and fractional and negative exponents.

II. Quadratics, etc.: Quadratic equations and equations containing one or more unknown quantities that can be solved by the methods of quadratic equations, problems depending upon such equations, ratio and proportion, and the binomial theorem for positive integral exponents.

Advanced Algebra (one-half unit)

I. Progressions, etc.: The progressions, the elementary treatment of permutations and combinations, and the use of four and five place tables and logarithms.

II. Series, etc.: Undetermined coefficients, the elementary treatment of infinite series, the binomial theorem for fractional and negative exponents, and the theory of logarithms.

III. Theory of equations: Determinants coefficients, the elementary treatment of, including Horner's method for, solving numerical equations.

Plane Geometry (one unit)

General text propositions, including the solution of simple original exercises and numerical problems.

Solid Geometry (one-half unit)

Properties of straight lines and planes, of dihedral and polyhedral angles, of projections, of polyhedrons, including prisms, pyramids, and the regular solids; of cylinders, cones, and spheres; of spherical triangles and the measurement of surfaces and solids.

Plane Trigonometry (one-half unit)

The definitions and relations of the six trigonometrical functions as ratios, proof of important formulas, theory of logarithms and use of tables, solution of right and oblique plane triangles.

Physics

(One unit)

It is recommended that the candidate's preparation should include:

- a. Individual laboratory work, comprising at least thirty-five exercises well distributed over the subjects of physics.
- b. Instruction by lecture-table demonstrations.
- c. The study of at least one standard text-book, supplemented by the use of many and varied numerical problems. The metric system should be familiar to the student.

The laboratory note-book must be submitted for inspection, whether the candidate is admitted on certificate or by examination.

Chemistry

(One unit)

The candidate's preparation in chemistry should include:

- a. Individual laboratory work, comprising at least forty experiments of a character analogous to those set forth by the College Entrance Examination Board. The laboratory note-book must be submitted for inspection.
- b. Instruction by lecture-table demonstrations.
- c. The study of at least one modern text-book.

Requirements.—The ground to be covered should include the following: The chief physical and chemical characteristics, the isolation and the recognition of the following elements and the preparation and study of their principal compounds: *Oxygen, hydrogen, carbon, nitrogen, chlorine, bromine, iodine, fluorine, sulphur, phosphorus, silicon, potassium, sodium, calcium, magnesium, zinc, copper, mercury, silver, aluminum, lead, tin, iron, manganese, chromium.*

The more detailed study should be confined to the italicized *elements* (as such) and to a restricted list of compounds, such as water, hydrochloric acid, carbon monoxide, carbon dioxide, oxides of nitrogen, nitric acid, ammonia, sulphur dioxide, sulphuric acid, hydrogen sulphide, sodium hydroxide, ammonium hydroxide.

Attention should be given to the atmosphere (constitution and relation to animal and vegetable life), flame, acids, bases, salts, oxidation and reduction, crystallization, combining proportions by weight and volume, calculations founded on these and on Boyle's and Charles' laws, symbols, formulas, equations and nomenclature, atomic theory, atomic weights, nascent state, natural groupings of the elements, solution (solvents and solubility of gases, liquids, and solids), strength of acids and bases, conservation and dissipation of energy, chemical energy and electrolysis, and of valence, electrolytic dissociation, osmosis, mass action in a very elementary way. Chemical terms should be clearly understood, and the student should be able to illustrate and apply the ideas that they embody. The theoretical topics are not intended to form separate subjects of study, but to be taught only so far as is necessary for the correlation and explanation of the experimental facts. The facts should be given as examples from various classes and not as isolated things.

Additional Subjects

Certificates will be accepted in botany, zoology, physiology, physiography, political economy, drawing, music, and other accredited subjects in secondary schools.

Manual-training High School Subjects

Technical subjects in manual-training high schools, or schools of similar grade, when duly certified, may be credited as follows:

Shopwork (not exceeding two units), domestic science and domestic art (not exceeding two units).

Business High School Subjects

Commercial subjects in business high schools or schools of similar grade, when duly certified, may be credited as follows:

Accounting and Finance. (One unit.)

Bookkeeping. (Two units.)

Business Organization. (One unit.)

Commercial Law. (One unit.)

Government and Industrial Problems. (One-half unit.)

Commercial History. (One-half unit.)

Commercial and Physical Geography. (One-half unit.)

ADMISSION TO ADVANCED STANDING

Candidates for admission to advanced classes in any department are examined in all indispensable preliminary studies.

Due credit is given for properly certified courses of study pursued in other colleges and universities.

SPECIAL STUDENTS

All the courses of instruction are open to students of suitable age and attainments who wish, without reference to any degree, to pursue special studies. Candidates must show that they are familiar with the subjects preliminary to the studies which they wish to pursue. Persons are allowed to register as auditors for the tuition fees without being required to take active part in the exercises or to pass examinations, but no credit will be allowed for such attendance.

SCHOLARSHIPS AND PRIZES

Applications for scholarships should be filed with the Dean of the College in which the student is registered not later than September fifteenth. All Scholarships except the Kendall Scholarship and the University Scholarships are awarded for one year only but they may be renewed. Any student holding a scholarship who fails to obtain a general average of 85 per cent on the work of any term, or whose deportment is unsatisfactory, will be reported to the President's Council, and in the absence of extenuating circumstances the scholarship will be revoked. All designations to scholarships are awarded by the President's Council on the recommendation of a Dean.

Scholarships for Competition

The University offers the following scholarships to be awarded on competitive examination given at the time of the May entrance examinations. Holders of these scholarships are expected to pursue a regular course in one of the colleges of the Department of Arts and Sciences. No scholarship is awarded to a candidate whose examination average is below 80 per cent.

Kendall Scholarship.—The Kendall Scholarship, founded by the late Hon. Amos Kendall, is annually conferred on that member of the graduating class of any of the Washington High Schools who attains the highest average in the entrance examinations. This scholarship continues throughout the undergraduate course, and the student holding it pays only the matriculation, library, laboratory, and graduation fees.

University Scholarships.—The University offers also six scholarships, to be awarded annually to members of the graduating classes of any of the Washington High Schools. These scholarships continue throughout the undergraduate course, and students holding them pay only the matriculation, library, laboratory, and graduation fees.

Scholarships for Assignment

Davis Scholarship.—This is the income of a fund of one thousand dollars given to the University in October, 1869, by Hon. Isaac Davis, of Massachusetts.

Mary Lowell Stone Scholarship.—This scholarship was founded by a woman in memory of a woman student of science. It consists of a fund of two thousand dollars, the income from which is to be paid to needy women students of science in the University.

Maria M. Carter Scholarship.—This is the income of a fund of one thousand dollars given to the University in 1871 by Mrs. Maria M. Carter.

Farnham Scholarship.—This is the income of a fund of one thousand dollars given to the University in 1871 by Mrs. Robert Farnham.

Withington Scholarship.—This scholarship was founded in 1830, by the New York Baptist Theological Seminary, to be known as the Withington scholarship. It has an annual stipend in tuition fees of sixty dollars.

Walker Scholarship.—This scholarship was founded in 1824 by William Walker, Esq., of Putnam County, Georgia. It carries an annual stipend of one hundred dollars in tuition fees available for an undergraduate intending to enter the Christian ministry.

Morehouse Scholarship.—This scholarship was founded by Mr. A. Morehouse, of Washington, D. C., in 1861. It carries an annual stipend of sixty dollars in tuition fees available for an undergraduate intending to enter the Christian ministry.

Henry Harding Carter Scholarships.—These scholarships, founded by Mrs. Maria M. Carter in memory of her husband, Henry Harding Carter, consists of four scholarships of the annual value of fifty dollars each, and may be awarded to deserving students who are preparing for the civil engineering profession.

Admiral Powell Scholarships.—The Admiral Powell Scholarships were founded by Admiral Powell, U. S. Navy. The income from this endowment is for the "free education of such young men as may desire to take advantage of the said endowment by way of their preparation for entrance into the Naval Academy at Annapolis, Maryland, or such as may fit them to become mates or masters in the Merchant Marine Service of the United States," and of "such apprentices as, having filled their time in the great steam manufactory establishments of the country, may apply for appointment from civil life in the Steam Engineer Department of the United States Navy." The number of scholarships awarded each year will be determined by the income from the endowment. Each scholarship will entitle the beneficiary to free tuition for one year. Such special courses of study are offered to each student as will give him the instruction needed to accomplish the purpose for which he is awarded the scholarship.

These scholarships are especially applicable to those who intend to

come up for examination as warrant officers in the Engineer Department of the Navy, to warrant officers who are preparing for examination for appointment as Ensign, or to those who desire to fit themselves for responsible positions in the mercantile marine.

The subjects to be taken by a student will vary according to his preparation and according to the purpose for which he has been awarded the scholarship, but a year's work can be selected from the following topics:

	HOURS
Navigation and Nautical Astronomy.....	6
Algebra and Geometry.....	3
Trigonometry.....	1½
Mechanical and Machine Drawing.....	4
English.....	3
French.....	3
German.....	3
Spanish.....	3
International Law.....	1
Commercial Geography.....	1
Admiralty Law.....	½
Boilers and Power Plants.....	3
Measurement of Power.....	2
Electricity.....	3
Electrical Engineering.....	6

Ministerial Aid.—The University authorizes the remission of a stated amount in tuition fees, to be called Ministerial Aid, which may be given to students, resident in the District of Columbia or its immediate vicinity in the regular courses of Columbian College, preparing for the ministry and not yet ordained. Any student receiving Ministerial Aid may be called upon for clerical or like work to the extent of not more than one hour a week for every ten dollars of tuition remitted, and of not more than four hours in any one week.

University Aid.—The University authorizes the remission of a stated amount in tuition fees, to be called University Aid, which may be given to undergraduate students in regular courses in the Department of Arts and Sciences, financially dependent on parents, who are residents of the District of Columbia or its immediate vicinity and whose circumstances warrant pecuniary assistance. Any student receiving University Aid may be called upon for clerical or like work to the extent of not more than one hour a week for every ten dollars of tuition remitted, and for not more than four hours in any one week.

Columbian Women Loan Fund.—The Columbian Women have established a fund from which money is loaned to women students, preference being given to women who have already begun work in the University and who need assistance in continuing it. The administration of the fund remains with the Columbian Women.

PRIZES

(Only candidates for degrees may compete for these prizes.)

Staughton and Elton Prizes.—The Staughton Prize, for excellence in the Latin Language and Literature, and the Elton Prize, for excellence in the Greek Language and Literature, founded by the Rev. Romeo Elton, D.D., of Exeter, England, consist of two gold medals, annually awarded to the best scholar in each of these languages.

Ruggles Prizes.—The Ruggles Prizes, for excellence in Mathematics, founded by Professor William Ruggles, LL.D., consist of two gold medals, annually awarded upon examination to the best two scholars in Mathematics.

Davis Prizes.—The Davis Prizes, for excellence in Elocution, founded by the Hon. Isaac Davis, LL.D., of Massachusetts, consist of three gold medals, annually awarded to the successful competitors in a public contest. Only members of the Senior Class are eligible to compete for these prizes.

Daughters of the American Revolution Prizes.—These prizes founded by the Daughters of the American Revolution of the District of Columbia, consist of two gold medals, awarded annually to the two students in the graduating class who, having maintained a high standing in the regular courses in Mediaeval, Modern European, English, and American History during three years, shall produce the best essays upon an assigned topic of American history.

The Thomas F. Walsh Prize.—This prize, established by Thomas F. Walsh, Esq., of Colorado, and based upon the income of one thousand dollars, consists of a gold medal awarded annually to that student of the graduating class who, having maintained a high standard in the regular classes of Mediaeval, Modern European, English, and American History, shall produce the best essay upon a designated period of the History of Ireland.

E. K. Cutter Prize.—The E. K. Cutter Prize in English was founded by the late Marion Kendall Cutter. The endowment is a fund of one thousand dollars, the income of which is given annually as a prize "for excellence in the study of English." The prize will be awarded to that member of the graduating class whose record in English, combined with general excellence, shows most marked aptitude and attainment in English studies.

Willie E. Fitch Prize.—The Willie E. Fitch Prize, for highest excellence in all branches of Chemistry, founded by James E. Fitch, Esq., in memory of his son, consists of fifty dollars, which is awarded annually for the best examination in Chemistry.

The Gardiner G. Hubbard Memorial Prize.—This is a prize in American History established by Mrs. Gertrude M. Hubbard in memory of her husband, the late Gardiner G. Hubbard. The endowment is a fund of one thousand dollars, the income from which is to be given annually to that member of the graduating class who has during four years main-

tained a high standing in the classes of American History, and who has produced the best essays upon subjects based upon a study of some assigned period of American history.

Muth Prize.—Geo. F. Muth and Company offer a set of drawing instruments to the student taking Advanced Mechanical Drawing who makes the highest average record in that subject and in the previous year's Mechanical Drawing.

Colonial History Prize.—The Society of the Colonial Dames of America, Chapter III, offers annually a gold medal for excellence in American Colonial History. This prize will be awarded by the professor of History for general excellence in this subject as shown by class standing, by special essays, and by such other tests as shall be prescribed.

James Macbride Sterrett, Jr., Prize.—Founded by Professor James Macbride Sterrett in memory of his son, consists of a gold medal annually awarded to that student taking Course 1 in Physics who obtains the highest average in a special examination on a given subject and in the writing of an essay on an assigned topic.

The Chi Omega Prize in Philosophy.—An annual prize of fifteen dollars is offered by the Phi Alpha Chapter of the Chi Omega Fraternity for the best essay on a philosophical subject to be announced at the close of the preceding academic year by the Committee in charge. Essays must meet the requirements defined by the Committee and be submitted on or before April 1. Only women students who are members of a senior class in the Department of Arts and Sciences, and who have previously completed the courses in General Psychology, Logic, and the History of Philosophy, are eligible to compete.

Chi Omega Prize in Sociology.—An annual prize of \$15.00 is offered by the Chi Omega Fraternity for the best essay on a sociological subject. All women students registered in the courses in Sociology are eligible to compete for this prize. The subjects of the essays are to be chosen by the competitors with the approval of the Professor of Sociology. The prize will be awarded by a committee of three, consisting of the Professor of Sociology, the Dean of Columbian College, and a third member selected by these two. Essays in competition for this prize must be submitted to the Professor of Sociology on or before May 1st.

Davis Prize Speaking

The Davis Prize Speaking is held on the Tuesday after the Easter holidays. The Davis Prizes were founded by Hon. Isaac Davis, of Massachusetts, in 1847. The original endowment was five hundred dollars, "proceeds of which will afford three premiums, in cash or gold medals, of the value of five dollars, of ten dollars, and of fifteen dollars annually—these premiums or prizes to be distributed annually to such members of the Senior Class as shall have made the greatest progress in elocution since their connection with the College."

The award of these three prizes is determined by a public speaking

contest, in which the participants deliver original orations. Senior students wishing to enter the competition should report to the Dean of Columbian College not later than five weeks before the contest, and submit their orations not later than three weeks before the contest. The prizes are awarded by a committee consisting of three members, selected by the Faculty of the Columbian College.

RELIGIOUS WORK

The student movement in Association work is represented by the Young Men's Christian Association of the University, which was organized in the fall of 1905. The Association plans and conducts religious work among the men of the University. The Association calendar includes Bible study clubs, a weekly chapel service, and occasional men's meetings.

Similar lines of religious work are conducted among the women students by the Young Women's Christian Association.

College Chapel

Chapel Services are held at 12.15 p.m., every week day, except Saturday, throughout the academic year.

The Deans of the Colleges will confer with students as they may desire on questions concerning their welfare and will co-operate with them in all ways to make the college life one of personal helpfulness.

FEEES

1. Matriculation fee (payable once).....	\$5
2. Annual library fee.....	2
3. Tuition fee per annum for each hour per week of undergraduate courses leading to the degrees of A.B. and S.B.....	10
The maximum fee charged in any one year is \$150.	
4. Tuition fee per annum for graduate courses leading to the degrees of A.M., S.M., C.E., E.E., M.E., and Ph.D.....	150
Each separate topic.....	50
Where candidates for higher degrees exceed the minimum time limit they may be liable for an additional charge of \$50 per annum for each topic pursued by them.	
5. Late registration fee in the case of students registering for the first term after October 20, or for the second term after February 20, except for courses which do not begin with the terms.....	2
6. Laboratory courses:	
Material fees:	
Experimental Psychology.....	2
Geology 1, Zoology, Botany, Chemistry 28, each.....	5
Chemistry 2, 3, and 7; Electrical Engineering; Physics, each	10

COLUMBIAN COLLEGE

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Chemistry 4 (Assaying).....	20
Chemistry, except 2, 3, 4, 7, and 28, each.....	25
Deposits to cover breakage of apparatus issued, the amount paid in excess of breakage to be returned:	
Chemistry, 2, 3, 7, and 28, each.....	10
Chemistry, except 2, 3, 4, 7, and 28, each.....	25
7. Fee for graduation.....	10
8. Tuition fee for the following special course, not taken by candidates for a degree:	
Chemistry 4 (Assaying).....	40
9. In determining tuition fees, three hours of laboratory work in Chemistry, and two hours of laboratory work in other subjects count as one hour.	
10. Fee for certificates under the seal of the University.....	2

No registration will be accepted for less than a full semester, and no change in the courses undertaken at the time of registration will be made unless approved by the Dean. *Withdrawals during the semester will be granted only on recommendation of the Dean and the approval of the President.*

PAYMENT OF FEES

Matriculation, library, and other special fees, and laboratory deposits are due in full in advance. Tuition and laboratory material fees may be paid in monthly installments in advance. Students unable to pay their fees monthly in advance will be required to file an acceptable personal or corporate bond for \$200 as security for future payment. In every instance all indebtedness must be discharged on or before May 1 of the current academic year. All fees are payable at the office of the Treasurer of the University, 2024 G Street.

BOARD AND ROOMS

A register of boarding houses is kept by the Treasurer. Accommodations cost from \$25 to \$40 a month.

For catalogues, application blanks, and further information, address

THE SECRETARY,
The George Washington University,
2023 G Street, Washington, D. C.

COLUMBIAN COLLEGE

ADMISSION

Candidates for admission to the Freshman Class in Columbian College must meet the general admission requirements (p. 49) of fifteen units. A unit represents a year's study in any subject in a secondary school, constituting approximately a quarter of a full year's work. *The fifteen*

units of the entrance requirement must include English, 3 units; Mathematics, 2½ units; and one of the following languages: Latin, Greek, French, German, or Spanish, 2 units. The remainder of the requirement is elective and may be satisfied in general by any accredited secondary school subjects.

For admission to advanced standing or as special students, see p. 59.

REQUIREMENTS FOR DEGREES

The undergraduate degrees offered by Columbian College are Bachelor of Arts, Bachelor of Science in Chemistry, and Bachelor of Science in Medicine. To be recommended for any one of these degrees, the student must be registered for at least one academic year in Columbian College; must satisfy the admission requirements, and must complete at least sixty "hours" of undergraduate courses. An "hour" of credit is one recitation or lecture a week or one laboratory period a week for one academic year. No time limit for the course is prescribed and the degree is given when the total of prescribed and elective studies is completed.

One grade of special distinction is recognized in awarding the bachelor's degree. It is shown by inserting the words "With Distinction" on the diploma after the name of the degree. It is awarded under the following conditions:

"That the names of all students who have received a mark of at least B (90 per cent) on courses representing at least sixty (60) per cent of all hours taken by them be submitted by the Dean to the Faculty of the Department in which the student shall be studying for a degree, after the completion of all final examinations in such students' final year of study for their degree;

"That the Faculty, after separate consideration of each individual case, shall, if it see fit, recommend the awarding of the degree 'With Distinction' to students who shall have fulfilled the conditions above specified."

FOR THE DEGREE OF BACHELOR OF ARTS

To be recommended for the degree of Bachelor of Arts, the student must complete courses of study including a group of prescribed subjects, and aggregating at least sixty "hours."

There are four groups of prescribed subjects for the first two years of the college course. Every candidate for the degree of Bachelor of Arts selects one of these groups of prescribed subjects, and thereafter he is not permitted to change to another group except on condition that he fulfill the requirements of the group to which he changes.

The studies of the last two years are elective, subject only to such administrative supervision as will insure the general consistency and the liberal character of the courses selected.

The scope of the four groups of prescribed subjects is a provision alike for the diversity in the subjects of the secondary school curriculum

leading to a college course, and the needs of the various graduate and professional courses of study in the University for which the college course is a preparation.

Group I emphasizes Latin and Greek studies, and it would naturally be taken by students whose preparatory work has included four years of Latin. Group II emphasizes the Modern Languages, affording to students whose preparation has not included Latin the humanistic influences of the literatures of the Modern Languages. Group III emphasizes Mathematics and the Natural Sciences, and would naturally be selected by the student whose college preparation has been scientific rather than literary. Group IV consists of such studies as would constitute needed preparation for the Department of Law, or further study in the political sciences.

(NOTE)—Whenever in the following groups French or German is taken, if it is elementary, the same language shall be continued the succeeding year.)

Group I

	HOURS
English.....	6
History.....	3
Languages*.....	9
Latin.....	6
Mathematics.....	3
Psychology and Logic.....	3
Electives.....	30

Group II

	HOURS
English.....	6
French.....	3
German.....	6
History.....	6
Mathematics or Science.....	3
Psychology and Logic.....	3
Romance Language.....	3
Electives.....	30

Group III

	HOURS
English.....	3
History.....	3
Mathematics.....	6
Modern Languages.....	6
Psychology and Logic.....	3
Science.....	9
Electives.....	30

* To be elected from Greek, French, German.

Group IV

	HOURS
Economics.....	3
English.....	3
History.....	6
Mathematics.....	3
Modern Languages or Latin.....	6
Political Science.....	3
Psychology and Logic.....	3
Science.....	3
Electives.....	30

FOR THE DEGREE OF BACHELOR OF SCIENCE IN CHEMISTRY

Freshman Year

	HOURS
Chemistry, 1, 2.....	5
English, 1 or 2.....	3
Mathematics, 3 or 6.....	3
French or German.....	3
Geology, 1.....	2

Sophomore Year

	HOURS
Chemistry, 3, 20.....	5
French or German.....	3
Mathematics, 9 or 12.....	3
Physics, 1, 2.....	5

Junior Year

	HOURS
Chemistry, 21, (4), 23.....	6
French or German.....	3
Mathematics, 20 or 21.....	3
Electrical Engineering, 7.....	3

Senior Year

	HOURS
Chemistry, 6, 24, 25, 27.....	9
Economics or History.....	3
Geology, 2.....	2

COMBINATION COURSES

Six-year course for the degree of Bachelor of Arts and Bachelor of Laws

Regular students in this course will complete three years of work aggregating forty-five hours in Columbian College, including one of the four groups of prescribed subjects, and will complete in the Department of Law the three-year course for the degree of Bachelor of Laws. On the completion of the prescribed forty-five hours of work in Columbian

College and the first year of the regular course in Law, the student will receive the degree of Bachelor of Arts.

Seven-year course for the degree of Bachelor of Arts and Doctor of Medicine

Regular students in this course will complete at least forty-eight hours as prescribed in Columbian College, and the four-year course in the Department of Medicine. On the completion of the prescribed forty-eight hours of work in Columbian College and the first year of the regular course in Medicine, the student will receive the degree of Bachelor of Arts.

The forty-eight hours of prescribed subjects in Columbian College are as follows:

Biological Sciences:	HOURS
Zoology, 1 and 2.....	6
Botany, 1, 2.....	3
Chemistry, 1, 3, 23.....	7
English, 1 or 2.....	3
French or Spanish.....	6
German.....	6
History.....	3
Mathematics, 3 or 6.....	3
Physics, 1 or 3, and 2.....	5
Psychology and Logic.....	3
Economics, History, or English.....	3
Total.....	48

Six-year course for the degrees of Bachelor of Science in Medicine and Doctor of Medicine

Regular students in this course will complete two years of work aggregating at least thirty-six prescribed hours in Columbian College, and the four-year course in the Department of Medicine. On the completion of this six-year course the student will receive at the same time the degrees of Bachelor of Science in Medicine and Doctor of Medicine. The curriculum requirement for this combined six-year course is as follows:

Biological Sciences:	HOURS
Zoology, 1.....	3
Botany, 1, 2.....	3
Chemistry, 1, 3, 23.....	7
English, 1 or 2.....	3
German or French or Spanish.....	6
History.....	3
Mathematics, 3 or 6.....	3
Physics, 1 or 3, and 2.....	5
Psychology and Logic.....	3
Total.....	36

Department of Medicine.—The four-year course for the degree of Doctor of Medicine.

SCHEDULE OF REQUIRED SUBJECTS FOR THE FIRST TWO YEARS

	MON.	TUES.	WED.	THURS.	FRI.	SAT.
9.15	Math. 3	English 3	Math. 3	English 3	Math. 3	English 3
10.15	French 3 Math. 9 Phil. 1	English 1 Physics 2	French 3 Math. 9 Phil. 3	English 1 Physics 2	French 3 Math. 9 Phil. 1	English 1
11.15	Econ. 20 French 1 German 3 Greek 2	German 1 Physics 2	Econ. 20 French 1 German 3 Greek 2	German 1 Physics 2	Econ. 20 French 1 German 3 Greek 2	German 1
1.45	German 5 Graphics 1 Latin 2 Physics 3	Chem. 2	German 5 Graphics 1 Latin 2 Physics 3	Chem. 2	German 5 Latin 2 Physics 3	
2.45	Graphics 1 Greek 1 Hist. 1, 2	Chem. 2 English 5	Graphics 1 Greek 1 Hist. 1, 2	Chem. 2 English 5	Greek 1 Hist. 1, 2	
3.45	Graphics 1 Hist. 3, 4 Latin 1 Spanish 2	Chem. 2	Graphics 1 Hist. 3, 4 Latin 1 Spanish 2	Chem. 2	Hist. 3, 4 Latin 1 Spanish 2	
5.00	English 2 Geology 1 Physics 1 Math. 4 Phil. 2 Spanish 1 Zoology 1	Botany 1, 2 Chem. 1 French 4 German 2 Hist. 32 Geology 3 Greek B	English 2 Physics 1 Math. 4 Phil. 4 Spanish 1 Zoology 1	Botany 1, 2 Chem. 1 French 4 German 2 Hist. 32 Greek B	English 2 Geology 1 Phil. 2 Physics 1 Math. 4 Spanish 1 Zoology 1	Botany 1, 2 Chem. 1 French 4 German 2
5.50	Econ. 20 English 4 Geology 2 Math. 12 Math. 6 Zoology 2	Chem. 6 French 2 German 4 Hist. 5, 6	Econ. 20 English 4 Math. 12 Math. 6 Zoology 2	French 2 German 4 Hist. 5, 6	Econ. 20 English 4 Geology 2 Math. 12 Math. 6 Zoology 2	French 2 German 4

CONSULAR SERVICE

Subjects that are of value in preparation for the Consular Service may be made the major interest in the electives of regular students, and may be taken by special students desiring such preparation. Subjects are offered in Commercial Geography, International Law, Economics, Business Organization, Current Events, Commercial and Maritime Law, Modern Languages.

COLLEGE OF ENGINEERING AND MECHANIC ARTS

ADMISSION

Candidates for admission to the Freshman Class in the Engineering Courses are required to present fifteen units for admission, distributed as follows:

	UNITS
English.....	3
French or German.....	4
Plane and Solid Geometry.....	1½
Elementary and Advanced Algebra.....	2
Plane Trigonometry.....	½
Chemistry.....	1
Physics.....	1
Electives.....	2
Total.....	15

NOTE.—The modern language requirement may be satisfied by presenting four units in one language, or two units in French and two units in German. Students who present four units in one language will study the other language two years in College. Students who present two units in French and two units in German will study each language one year in College.

Candidates for admission to the Freshman Class in the Architectural Course are required to present fifteen units for admission, distributed as follows:

	UNITS
English.....	3
French or German.....	2
Plane and Solid Geometry.....	1½
Elementary and Advanced Algebra.....	2
Plane Trigonometry.....	½
Electives.....	6
Total.....	15

For detailed descriptions of the requirements in each preparatory subject see pages 51-58.

For admission to advanced standing or as a special student, see page 59.

COURSES FOR A DEGREE

Four courses of study are offered:

- I. CIVIL ENGINEERING.
- II. ELECTRICAL ENGINEERING.
- III. MECHANICAL ENGINEERING.
- IV. ARCHITECTURE.

These courses occupy four years each, and lead to the degree of Bachelor of Science in Civil Engineering, in Electrical Engineering, in Mechanical Engineering, and in Architecture, respectively. Graduate courses of one year under the Faculty of Graduate Studies of the George Washington University are open to those who receive the above engineering degrees, and lead, respectively, to the degrees of Civil Engineer, Electrical Engineer, and Mechanical Engineer.

REQUIREMENTS FOR A DEGREE

The arrangement of the topics in each of the regular courses for degree is shown below. The numbers following the names of subjects refer to the courses as given in the list of Department Subjects on pages 79-109, to which reference should be made for more complete description.

COMMON TO ALL ENGINEERING COURSES

Freshman Year

- Chemistry, 1, 7.
 - General Chemistry and Qualitative Analysis.
- English, 1 or 2.
 - Rhetoric.
- French or German.
- Graphics, 1.
 - Mechanical and Freehand Drawing.
- Mathematics, 9 or 12.
 - Trigonometry; Analytic Geometry.

CIVIL ENGINEERING COURSE

Sophomore Year

- Civil Engineering, 1, 3, 4.
 - Surveying; Highway Engineering; Materials of Construction.
- French or German.
- Graphics, 8.
 - Descriptive Geometry.
- Mathematics, 20 or 21.
 - Calculus.
- Physics, 1, 2.
 - General Physics; Laboratory Physics.

Junior Year

Applied Mathematics, 20, 22.
Mechanics; Mechanics of Materials.
Chemistry, 6.
Metallurgy.
Civil Engineering, 2, 8, 9, 22.
Railroad Engineering; Practical Astronomy; Testing Laboratory; Theory of Structures.
Electrical Engineering, 6.
Industrial Electricity
Geology, 2.

Senior Year

Applied Mathematics, 21.
Hydraulics.
Civil Engineering, 20, 21, 23, 24.
Masonry; Hydraulic Engineering; Theory of Structures; Sanitary Engineering.
Economics, 33.
Commercial Law.

ELECTRICAL ENGINEERING COURSE

Sophomore Year

French or German.
Graphics, 2, 8.
Advanced Mechanical Drawing; Descriptive Geometry.
Mathematics, 20 or 21.
Calculus.
Mechanical Engineering, 1.
Mechanism.
Physics, 1, 2.
General Physics; Laboratory Physics.

Junior Year

Applied Mathematics, 20, 22.
Mechanics; Mechanics of Materials.
Chemistry, 6.
Metallurgy.
Electrical Engineering, 1, 2, 4, 5.
Elementary Electricity and Electrical Engineering; Electrical Measurements; Electrical Engineering Laboratory.
Mechanical Engineering, 20, 21.
Steam Engineering; Boilers.

Senior Year

Applied Mathematics, 21.
Hydraulics.
Civil Engineering, 5, 6.
Surveying Instruments; Foundations.
Economics, 33.
Commercial Law.
Electrical Engineering, 8, 21, 22, 23, 24, 26, 27.
Electrical Designs; Alternating Currents; Electrical Distribution; Electrical Applications; Electrical Engineering Laboratory; Electric Lighting; Electric Railways.
Mechanical Engineering, 10, 23.
Engineering Laboratory; Hydraulic Machinery.

MECHANICAL ENGINEERING COURSE**Sophomore Year**

French or German.
Graphics, 2, 8.
Advanced Mechanical Drawing; Descriptive Geometry
Mathematics, 20 or 21.
Calculus.
Mechanical Engineering, 1.
Mechanism.
Physics, 1, 2
General Physics; Laboratory Physics.

Junior Year

Applied Mathematics, 20, 22.
Mechanics; Mechanics of Materials.
Civil Engineering, 22.
Theory of Structures.
Mechanical Engineering, 6, 9, 20, 21, 24, 28.
Engineering Drawing; Engineering Laboratory; Steam Engineering; Boilers; Cotton Machinery and Machine Tools; Industrial Management.

Senior Year

Applied Mathematics, 21
Hydraulics.
Chemistry, 6.
Metallurgy.
Civil Engineering, 5, 6.
Surveying Instruments; Foundations.
Economics, 33.
Commercial Law.

Electrical Engineering, 7.

Dynamos and Motors.

Mechanical Engineering, 7, 10, 22, 23, 26, 27.

Machine Design; Engineering Laboratory; Gas Engines;
Hydraulic Machinery; Dynamics of Machinery; Power Plant
Design.

COURSE IN ARCHITECTURE

Freshman Year

Architecture, 2, 3, 4.

Free-hand Drawing; Architectural Drawing and Elementary
Design; Projections, Shades, Shadows and Perspective.

English, 1 or 2.

Rhetoric.

French.

Mathematics, 9 or 12.

Trigonometry; Analytic Geometry.

Sophomore Year

Architecture, 5, 6, 8.

Architectural Design; Free-hand Drawing; History of Archi-
tecture.

English, 3 or 4

Humanistic Studies.

French.

Geology, 2.

Junior Year

Architecture, 20, 21, 22, 24, 25, 33.

History of Architecture; Building Construction; Sanitation;
Pen and Ink Rendering; Design; Water Color.

Physics, 1 or 3.

General Physics.

Senior Year

Archaeology, 20.

History of Art.

Architecture, 27 or 37, 39, 40, 41, 43.

Design; Building Construction; Water Color; Heating and
Ventilating; Office Practice.

Economics, 33.

Commercial Law.

Electrical Engineering, 26.

Electric Lighting and Illumination.

TEACHERS COLLEGE

The purpose of the Teachers College is to provide (a) collegiate training for teachers, (b) instruction in education as a department of science.

The aims of the Teachers College may be summarized as follows:

- a. To promote the knowledge of educational science.
- b. To fit students for the higher positions in the public school service.
- c. To secure to teaching the rights and prerogatives of a profession.
- d. To aid in raising the standards of educational practice, and so to increase the efficiency of public education.

ORGANIZATION

In order to combine to the best advantage a general college education with adequate professional training for teaching, the Teachers College provides a four years' college course, the first two years of which are devoted to a foundation of general culture courses, and the last two to the professional courses and to specialization in the subjects which the student expects to teach.

Inasmuch as a large number of teachers in service are without college degrees, and a still larger number desire to supplement their professional training by taking special courses, the courses of instruction have been arranged to meet the needs of teachers in service, as well as of undergraduate students. The required courses constituting the prescribed work in education are given both in the morning and in the late afternoon hours, and are, therefore, easily accessible both to students and to teachers from the schools.

ADMISSION

Candidates for admission to the Freshman Class in the Teachers College must meet the general admission requirements (p. 49) of fifteen units. *Three of these must be in English, two and one-half in Mathematics, and two in one of the following languages: Latin, Greek, French, German, or Spanish.* The remainder of the required fifteen units may be satisfied by any accredited secondary subjects.

Persons desirous of taking one or more of the professional courses, without becoming candidates for a degree, may be admitted as special students on the presentation of satisfactory evidence that they are qualified to pursue the work to advantage.

Graduates of approved Normal Schools, Training Colleges, or Technical Schools, and teachers of experience who have studied privately, will be admitted to such advanced standing as the courses they have pursued warrant.

For further information concerning admission as special student or to advanced standing, see p. 59.

GRADUATION

On the completion of courses of study aggregating at least sixty hours, the University confers the degree of Bachelor of Arts and a Teacher's Diploma. (An "hour" of credit is one recitation or lecture a week or one laboratory period a week for one academic year.) These courses are partly prescribed and partly elective, and the degree is conferred when the necessary work is completed, no time limit being set. The prescribed courses are the following:

a. In general culture subjects:

	HOURS
Biology*.....	3
English.....	3
Foreign Language*.....	6
History*.....	6
Psychology and Logic.....	3
Philosophy.....	3

For the subjects marked with an asterisk (*) electives may be substituted to the extent that approved secondary school work has been done in these subjects. The foreign language requirement must fall in one language, while in history it is required that a survey of the world's history be obtained, and to the extent that this survey has not been obtained before entering college will college work in history be required.

b. In professional subjects ten hours are required of which the following seven are prescribed, although teachers of experience may substitute an elective in education, counting two hours, for Observation and Practice Teaching.

	HOURS
History of Education.....	2
Principles of Education }.....	2
Principles of Teaching }	
School Hygiene.....	1
Observation and Practice Teaching.....	2

In order that the student may receive a thorough grounding in the branches that he wishes to teach, the electives are subject to the following restrictions:

All regular students must complete before graduation at least nine hours in a Major, and at least five hours in a Minor subject, in addition to the first required course, if any, in the same subject.

As a Major, any one of the following subjects, or group of subjects, may be chosen: English, Latin, Greek, French, German, Mathematics, Physical Science, Biological Science, History, Economics and Political Science, Philosophy and Psychology.

As a Minor, choice may be made of any of the other subjects in the same list, or of Education.

21. *History of Art*.—An advanced course treating important periods in Greek, Roman and Renaissance Architecture, Sculpture and Painting. Illustrated lectures and conferences, Tu., Th., at 5.00. Professor CARROLL and Miss ASHLEY.

Third Section. Primarily for Graduates

50. *Classical Archaeology*.—Topography and Monuments of Athens and Rome. Two hours. Professor CARROLL.

51. *Ancient Art*.—A course in the history of Egyptian, Assyrian, Persian, Greek and Roman Architecture. Professor CARROLL.

52. *Life, Literature, and Art of the Homeric Age*.—Professor CARROLL.

Use is made of the illustrative material in the Library of Congress, the National Museum and the Corcoran Gallery of Art. Students are invited to the open meetings of the Washington Classical Club and the Washington Society of the Archaeological Institute of America.

ARCHITECTURE

PERCY ASH, S.B., C.E.....	Professor
ALBERT BURNLEY BIBB.....	Professor
ALBERT LEWIS HARRIS, B.S. in Arch.....	Assistant Professor
PHILIP ROGERS HOOTEN.....	Instructor

First Section. Primarily for Undergraduates

2. *Freehand Drawing*.—To be taken at the Corcoran Gallery of Art. Two periods.

3. *Architectural Drawing and Elementary Design*.—This course includes the study of the elements of Architecture including the Five Orders, the use of india ink and water color rendering. At least nine hours per week are to be spent by the student in the drafting room.

Criticisms by Professor ASH on Tuesday and Friday evenings and by Mr. HOOTEN on Monday, Wednesday and Thursday evenings.

4. *Projections, Shades, Shadows and Perspective*.—A course in orthographic projections, shades and shadows, followed by a short course in perspective. Two hours.

Criticisms by Mr. HOOTEN on Wednesday evenings.

5. *Design*.—In this course the student is taught to combine the elements of Architecture with which he has become familiar in Architecture 3, in simple and harmonious compositions. Simple problems in plan and Archaeology are also given. At least twelve hours per week are to be spent by the student in the drafting room.

Criticisms by Professor ASH on Tuesday and Friday evenings and by Mr. HOOTEN on Monday, Wednesday and Thursday evenings.

6. *Freehand Drawing*.—Advanced course. To be taken at the Corcoran Gallery of Art. Two periods.

8. *History of Architecture*.—The course is designed to trace the development of the art in Ancient Egypt, in Greece, and in Rome, and through the early Christian, Byzantine, and Mediaeval periods. Tu., Th., Sat., at 5.00. Professor BIBB.

Second Section. For Undergraduates and Graduates

20. *History of Architecture*.—An advanced course offering a critical study of the architecture of the Renaissance in Italy, France and England, and of its effect upon the building arts of our own time. Tu., Th., Sat., at 5.50. Professor BIBB.

21. *Building Construction*.—Frame buildings, details of construction, interior finish, three-fourths scale and full size details. One lecture and three hours in drafting room. Assistant Professor HARRIS.

22. *Sanitation*.—History of sanitation; pollution of water sources; modern plumbing practice; methods of sewage disposal, septic tank, sewage disposal fields, etc. Two lectures a week for one term. Assistant Professor HARRIS.

24. *Pen and Ink Rendering*.—A study of the renderings of the best pen and ink draftsmen with practice in the use of the pen as a means of Architectural expression. One hour.

Hours of criticism selected by conference with Professor ASH.

25. *Design*.—This course includes plan problems, sketch problems, and problems in Archaeology of a more advanced nature than are given in Architecture 5. At least fifteen hours a week are to be spent by the student in the drafting room.

Criticism by Professor ASH on Tuesday and Friday evenings and by Mr. HOOTEN on Monday, Wednesday and Thursday evenings.

27. *Advanced Design*.—Design problems of an advanced nature including group plans are given during the first semester. The second semester is devoted to a thesis, the subject being selected by the student subject to the approval of the Professor of Design. At least eighteen hours a week are to be spent by the student in the drafting room.

Criticism by Professor ASH on Tuesday and Friday evenings and by Mr. HOOTEN on Monday, Wednesday and Thursday evenings.

33. *Water Color*.—Drawing in water color from still life models, from architectural interiors, and from buildings and gardens. Two hours. Professor BIBB.

37. *Beaux Arts Problems*.—In place of the Design of Architecture 27, Senior students may take the Beau Arts Problems, Class A, given at the Atelier, of the Washington Architectural Club, under Mr. BEDFORD BROWN.

39. *Building Construction*.—Masonry foundations, pile foundations, stone work, brick work, fire-proofing, ornamental terra cotta, plastering, specifications. One lecture and three hours in drafting room a week. Assistant Professor HARRIS.

40. *Water Color*.—Advanced course. A continuation of course 33. Two hours. Professor BIBB.

41. *Heating and Ventilating*.—Elementary principles of heating and ventilating; details of installation of hot air, hot water, and steam heating plants. Two lectures for one term. Assistant Professor HARRIS.

43. *Office Practice*.—A course of lectures on office practice, business methods of an Architect and special types of buildings by the teaching staff and practicing Architects of the District of Columbia. One hour.

ASTRO-PHYSICS

FREDERICK EUGENE FOWLE, JR.....Lecturer

Third Section. Primarily for Graduates

54. A lecture course on the astro-physical instruments employed in modern research. Mr. FOWLE.

BIOLOGICAL SCIENCE

PAUL BARTSCH, Ph.D.....Professor

ALBERT MANN, Ph.D.....Professor

JULIA THECKLA MACMILLAN, A.M.....Instructor

GEORGE TRAVER HARRINGTON, B.S. in Agri., B.S. in Chem....Instructor

Zoology

First Section. Primarily for Undergraduates

1. *Systematic Zoology*.—I. Invertebrates. This includes lectures and laboratory work. The lectures cover all the branches of Invertebrates, and correlated with these lectures is the study and dissection of typical specimens in each group. This course is intended to familiarize the student with biological characters, classificatory laws, and the general principles of evolution. Lecture, *Mon.*, at 5.00; laboratory, *Wed.*, *Fri.*, 5.00-6.40. Professor BARTSCH and Miss MACMILLAN.

2. *Systematic Zoology*.—II. Vertebrates. This includes lectures and laboratory work. The lectures will cover the various branches of Vertebrates, and correlated with these is the study and dissection of typical specimens of each group. Open only to students having completed Course 1. Lecture, *Mon.*, at 5.50; laboratory *Wed.*, *Fri.*, 5.00-6.40. Professor BARTSCH and Miss MACMILLAN.

Second Section. For Undergraduates and Graduates

20. *Practical Zoology*.—A lecture course illustrated with lantern slides and demonstrations. In this course only beneficial and injurious animals of all classes will be considered, especial stress being laid upon the problems of preservation and extermination. The course aims to expound the economic side of zoology. Open to all students. One hour. Professor BARTSCH.

23. *Ornithology*.—A systematic course embracing lectures and laboratory work. The lectures are illustrated with lantern slides, showing the home life of birds. The laboratory work consists in classifying bird skins, of which the University possesses an excellent series. Special attention is directed to the study of the birds of the District of Columbia, and frequent field excursions are made to familiarize the student with the haunts and habits of these forms. Lecture, one hour; laboratory, one two-hour period. Professor BARTSCH and Miss MACMILLAN.

Laboratory courses in histology and physiology will be arranged for competent students.

Botany

First Section. Primarily for Undergraduates

1. *General Botany*.—An introductory course dealing with the fundamental concepts of plant life. Representative members of the different groups of plants will be studied, and lines of evolutionary development will be emphasized. First half-year. Lecture, *Th.*, at 5.00; laboratory, *Tu.*, and *Sat.*, 5.00-6.40. Mr. HARRINGTON.

2. *Morphology of the Seed Plants*.—A study of the structures of root, stem, leaf, flower, and fruit of the seed plants, with incidental reference to the physiology of the plant and its relation to its environment. Second half-year. Lecture, *Th.*, at 5.00; laboratory, *Tu.* and *Sat.*, 5.00-6.40. Mr. HARRINGTON.

Third Section. Primarily for Graduates

50. Original investigation in (a) Economic Botany, *Materia Medica*, etc.; (b) Parasitism and Monstrosities; (c) Researches in Physiology of single groups; (d) Comparative Organography. Professor MANN.

BOTANY

See Biological Sciences.

CHEMISTRY

CHARLES EDWARD MUNROE, Ph.D., LL.D.....	Professor
FRANK WIGGLESWORTH CLARKE, Sc.D.....	Professor
HARVEY WASHINGTON WILEY, Ph.D., M.D., LL.D.....	Professor
NEVIL MONROE HOPKINS, Ph.D.....	Assistant Professor
EDWIN ALLSTON HILL, Ph.D.....	Assistant Professor
THOMAS MALCOLM PRICE, Ph.D.....	Assistant Professor
OTIS DOW SWETT, LL.M., S.M.....	Assistant Professor
HIRAM COLVER MCNIEL, Ph.D.....	Assistant Professor

First Section. Primarily for Undergraduates

1. *General Chemistry*.—A series of illustrated lectures, accompanied by recitations and exercises, on theoretical, inorganic, organic, and tech-

nical chemistry. *Tu., Th., Sat.*, at 4.50. Professor MUNROE, Assistant Professor SWETT.

2. *Laboratory Practice*.—A laboratory course for the study of the principles of chemistry and the method of conducting chemical experiment. Two three-hour periods. *Tu., Th.*, at 1.30 or at 7. Professor MUNROE, Assistant Professor SWETT.

3. *Preparation and Study of the Properties of Chemical Substances*.—A laboratory course. Two three-hour periods. *Tu., Th.*, at 1.30 or at 7. Professor MUNROE, Assistant Professor SWETT.

4. *Assaying and Metallurgy of the Precious Metals*.—Carried on by the method used by the Government Assayers, the Laboratory being fitted up on the plan of that of the United States Mint. Twelve hours for three months. Professor MUNROE, Assistant Professor SWETT.

5. *Principles of Analysis*.—Lecture. One hour. Professor MUNROE.

6. *Metallurgy of Iron and Steel*.—A course of lectures and readings. *Tu.*, at 6.00. Professor MUNROE.

7. *Qualitative Analysis*.—A brief course intended primarily for students in engineering. Two three-hour periods. *Tu., Th.*, at 1.30 or at 7. Professor MUNROE. Assistant Professor SWETT.

Second Section. For Undergraduates and Graduates

20. *Qualitative Analysis*.—A laboratory course in the study of the properties and reactions of chemical substances, and of the means employed for their detection and identification. Three three-hour periods. Professor MUNROE, Assistant Professor PRICE, Assistant Professor SWETT.

21. *Quantitative Analysis*.—A laboratory course in the quantitative estimation of the constituents of a specially selected and typical set of chemical substances, which are particularly adapted for teaching the student the aims and methods of quantitative chemical analysis and for imparting facility in manipulation. Four three-hour periods. Professor MUNROE, Assistant Professor PRICE, Assistant Professor SWETT.

23. *Organic Chemistry*.—Advanced course. *Wed., Fri.*, at 4.50. Professor MUNROE, Assistant Professor SWETT.

24. *Organic Chemistry*.—Advanced course. A continuation of Course 23. *Th., Sat.*, at 6.00. Professor MUNROE, Assistant Professor SWETT.

25. *Chemistry of the Carbon Compounds*.—A laboratory course in the preparation and study of the properties of a characteristic series of organic compounds. Four three-hour periods. Professor MUNROE, Assistant Professor SWETT.

26. *Physical Chemistry*.—A lecture course designed to be an introduction to physical chemistry, and to treat of the modern theories of chemistry from the physical standpoint. In this course special attention is given to the ionic theory, electro-chemistry, the law of mass action, and the phase rule. Two hours. Assistant Professor McNEIL.

27. *Stereo-Chemistry*.—This course deals with the arrangements of atoms in space from a theoretical standpoint, while the student is taught

how to form models by which to illustrate their arrangements. Two hours. Assistant Professor HILL.

28. *Biochemistry*.—A laboratory course in the chemical examination of some of the chief foodstuffs, the tissues and fluids of the body, and the products of certain organisms; also the isolation of the digestive enzymes and a study of their action *in vitro*. Three three-hour periods. Assistant Professor PRICE.

Third Section. Primarily for Graduates

50. *Explosive Substances*.—Professor MUNROE.

51. *Analytical Methods*.—Professor MUNROE.

53. *Development of the Theory of the Constitution of the Natural Silicates*.—Professor CLARKE.

54. *Special Researches in Agricultural Chemistry*.—Professor WILEY.

55. *Special Researches in Electro-Chemistry*.—Assistant Professor HOPKINS.

Students in Chemistry are invited to attend the meetings of the Chemical Society of Washington which are held on the second Thursday of each month from October to May, in the Assembly Hall of the Cosmos Club, at 8 p.m., and also the meetings of the Chemical Society of the George Washington University which is a most active and efficient student organization.

CIVIL ENGINEERING

See Engineering.

CLASSICAL LANGUAGES AND LITERATURES

CHARLES SIDNEY SMITH, Ph.D.....Professor
MOSES WALTON HENDRY, A.B., LL.B.....Assistant

Greek

First Section. Primarily for Undergraduates

A. *Elementary Course*.—For students who have not taken Greek before matriculating. It aims to cover as much as possible of the entrance requirement in Greek, with the exception of Homer. Three hours. Not given in 1913-14.

B. *Homer: Iliad I-IV or Odyssey V-VIII*.—For students who have taken Course A and desire to prepare themselves to enter Course 1. Tu., Th., at 5.00.

1. Herodotus (selections); Lysias (selected orations); Euripides (*Alcesteis*); Greek prose composition. Mon., Wed., Fri., at 2.45.

2. Xenophon (*Memorabilia*); Thucydides (Book VII); Sophocles (*Antigone*). Mon., Wed., Fri., at 11.15.

Second Section. For Undergraduates and Graduates

20. Plato (selections, including the Apology and Crito); Aristophanes (Clouds or Frogs). *Tu., Th.*, at 1.45.

21. Demosthenes (selected orations); Lucian (selected dialogues); Homer (selections) Two hours. Not given in 1913-14.

Latin

First Section. Primarily for Undergraduates

1. Livy (Books I and XXI); Cicero (De Senectute); Horace (Odes and Epodes); Latin prose composition. Open to students who have satisfied the admission requirements in elementary and advanced Latin. *Mon., Wed., Fri.*, at 3.45.

2. Cicero and Pliny (selected Letters); Horace (Satires and Epistles); Martial (selections). *Mon., Wed., Fri.*, at 1.45.

Second Section. For Undergraduates and Graduates

20. Tacitus (selections); Terence (Phormio); Plautus (Captivi).—Two hours. Not given in 1913-14.

21. *Roman Literary Criticisms*.—(Quintilian, Book X, and Horace, *Ars Poetica*); Catullus, Tibullus, and Propertius. *Tu., Th.*, at 11.15.

22. *Advanced Latin Composition and Reading at Sight*.—Practice in Latin expression and style. *Th.*, at 2.45.

Third Section. Primarily for Graduates

The work in this Section is designed to afford discipline in the methods of philological criticism, with special reference to the interpretation of classical authors, and will include opportunities for original research on the part of competent students. In order to make the work as helpful as possible for those who expect to become teachers, the center of study each year will be one of the authors usually taught in the secondary schools. With the approval of the instructor, properly qualified Seniors may be admitted to these courses. The authors selected are as follows:

50. *Vergil and Roman Epic Poetry*.—Hours to be arranged.

51. *Caesar, and the Roman Historians*.—Not given in 1913-14.

52. *Cicero, and Roman Oratory*.—Not given in 1913-14.

ECONOMICS AND SOCIOLOGY

ROBERT RUSS KERN, A.B. Assistant Professor
OSCAR PHELPS AUSTIN. Lecturer

Second Section. For Undergraduates and Graduates

20. *General Economics*.—An outline course in the principles of political economy, devoted mainly to the study of production and exchange under present-day conditions. Given in two sections. First half-year. *Mon., Wed., Fri.*, at 11.15 (Section a); at 5.50 (Section b), Assistant Professor KERN.

21. *The Economics of Distribution and Consumption*.—A continuation of Course 20, devoted mainly to the problems of rent, interest, wages, and profits, and including an examination of competition, private property, luxury, saving, and speculation, in their effects upon human welfare. Given in two sections. Second half-year. *Mon., Wed., Fri.*, at 11.15 (Section a); at 5.50 (Section b), Assistant Professor KERN.

22. *General Sociology*.—An outline course in the principles of sociology, devoted mainly to the study of social origins and the development of existing social institutions, with special attention to social psychology. Two hours, first half-year. *Mon., Fri.*, at 5.00. Assistant Professor KERN.

23. *Modern Social Problems*.—A further analysis of modern social conditions with special studies of current questions in sociology. Prerequisite, the course in general sociology. Two hours, second half-year. *Mon., Fri.*, at 5.00. Assistant Professor KERN.

24. *The History of Economic Thought*.—A review of the development of economics as a science from the earliest times to the present. Lectures and library readings. Two hours, first half-year. *Tu., Th.*, at 5.00. Given in alternate years. Not given in 1913-34. Assistant Professor KERN.

25. *Social Psychology*.—A study of the psychological nature of man; his instincts, feelings, and passions as social forces; an inquiry into the development of these forces, and the reaction of the social mind upon the individual; an investigation of the theories of Giddings, Tarde, Ross, and McDougall. Second half-year. *Tu., Th.*, at 5.50. Given in alternate years. Not given in 1913-14. Assistant Professor KERN.

26. *Public Finance*.—A course in the development of budgetary and fiscal methods and principles. The history and tendencies of public expenditure under the Federal and State governments. The theory of taxation; administration of public domains, and industries; public debts. First half-year. *Tu., Th.*, at 5.00. Assistant Professor KERN.

27. *Money and Banking*.—The history and theory of money; the production of the precious metals; the theory of prices and measurement of price fluctuations; monetary systems; the relation of the Treasury system to our money supply; the theory of credit and banking; the national bank system of the United States and the banking system of foreign nations. Second half-year. *Tu., Th.*, at 5.00. Assistant Professor KERN.

33. *Commercial and Maritime Law*.—An outline of the principles of the law relating to commercial transactions generally, including those peculiar to the sea, with more especial reference to the subjects of contracts,

class instruction. Class discussion, lectures, and assigned readings. *Wed.*, at 5.00. First half-year. Not given in 1913-14.

30b. *School Supervision*.—A course involving the study of the relations of teachers to supervising officers, the principles of helpful criticism, the testing of class work, the conducting of teachers meetings, and the rating of teachers. Class discussions, lectures, and assigned readings. *Wed.*, at 5.00. Second half-year. Not given in 1913-14.

31. *Observation and Practice Teaching*.—The aim of this course is (a) to provide under guidance for the observation of the applications of general educational principles and of methods of teaching and (b) to lead the student-teacher to form the connection between theory and practice in teaching and to establish right teaching habits. Two hours. Professor RUEDIGER.

32. *Adolescence*.—A consideration of the psychology of adolescence, with special reference to the problems of secondary education. Lectures, readings, and special topics. *Sat.*, at 9.15. (Courses 27 and 32 will not both be given.) Dr. SMALL.

Third Section. Primarily for Graduates

50. *Seminar in Education*.—The theme for 1913-14 will be current educational topics. The significant periodical literature will be reviewed from month to month, the reports and bulletins issued by the United States Bureau of Education will be discussed, the proceedings of the National Education Association will be examined, and recent educational books will be reviewed. Each member of the class will be given an opportunity to investigate and report upon some present educational tendency. Open to qualified undergraduates. *Wed.*, 3.30-5.00, or at an hour to be arranged. Two hours credit. Professor RUEDIGER.

ELECTRICAL ENGINEERING

See Engineering.

ENGLISH

WILLIAM ALLEN WILBUR, A.M.....	Professor
RICHARD COBB, A.B.....	Assistant Professor
EDWIN WILEY, Ph.D.....	Lecturer

First Section. Primarily for Undergraduates

1. *English Rhetoric*.—A study of the principles of self expression through language with practice in composition. *Tu., Th., Sat.*, at 10.15. Professor WILBUR.

2. *English Rhetoric*.—Parallel with Course 1. *Mon., Wed., Fri.*, at 5.00. Professor WILBUR.

NOTE.—Credit for Course 1 or 2 is requisite for admission to any other course in English.

3. *Humanistic Studies*.—The Faerie Queen; Advancement of Learning, Book I; Holy Dying, Volume I; Pepys' Diary; Evelina; Endymion. First half-year.

The Federalist; Past and Present; The English Mail Coach; Essays of Elia; Twice Told Tales; The Scarlet Letter; Poe's Tales. Second half-year. *Tu., Th., Sat.*, at 9.15. Professor WILBUR.

4. *Humanistic Studies*.—Euphues; The Shepherd's Calendar; Pilgrim's Progress; The Complete Angler; Pride and Prejudice; Emma; Persuasion; Vanity Fair; The House of Seven Gables; Sartor Resartus; The Merry Men: First half-year.

Idylls of the King; In Memoriam. Second half-year. *Mon., Wed., Fri.*, at 5.50. Professor WILBUR.

5. *English Literature*.—Eighteenth century, first half-year. Nineteenth century, second half-year. *Tu., Th.*, at 2.45. Assistant Professor COBB.

Second Section. For Undergraduates and Graduates

20. *English Composition*.—*Tu., Th.*, at 11.15. Assistant Professor COBB.

22. *Shakespeare*.—The Comedies. Given alternate years. Not given 1913-14.

23. *Shakespeare*.—The Tragedies. *Mon., Wed., Fri.*, at 9.15. Professor WILBUR.

(The Temple edition of Shakespeare is recommended.)

26. *Chief American Poets*.—Studies in Poetry. *Tu., Th.*, at 5.00. Professor WILBUR.

Third Section. Primarily for Graduates

54. *English Seminar*.—Graduate students engaged in individual research will discuss assigned topics in a seminar of English studies, meeting each week at an appointed time.

ENGINEERING

EDWIN VIVIAN DUNSTAN, C.E.	Professor
OSCAR ALEXANDER MECHLIN, C.E.	Professor
FRANK CHARLES STARR, S.B.	Assistant Professor
CHARLES WARD MORTIMER, M.E.	Assistant Professor
HAYNER HASKELL GORDON, E.E., Ph.D.	Instructor
ROBERT WILBUR MORSE, S.B.	Instructor
MARK RITTENHOUSE WOODWARD, E.E.	Instructor

Applied Mathematics

Second Section. For Undergraduates and Graduates

20. *Analytical and Applied Mechanics*.—(1) Statics: including the composition, resolution and equilibrium of forces; center of gravity; friction; machines. (2) Kinematics and Kinetics: including rectilinear

and curvilinear motion; motion under action of variable forces and in resisting media; constrained and rotary motion; impact; work and energy; moment of inertia. Four hours, first half-year. Professor DUNSTAN.

21. *Hydraulics*.—The theoretical principles of hydraulics; including hydrostatics, flow through orifices, over weirs, through pipes and in open channels, and the dynamic pressure of water. Four hours, first half-year. Professor DUNSTAN.

22. *Mechanics of Materials and Theory of Elasticity*.—Including elastic and ultimate strength and deformation; simple cantilever and continuous beams; columns, torsion; combined stresses; compound columns and beams; including reinforced concrete; resilience; work; fatigue; mathematical theory of elasticity. Four hours, second half-year. Professor DUNSTAN.

Civil Engineering

First Section. Primarily for Undergraduates

1. *Surveying and Mapping*.—This course includes the theory and use of instruments; land, topographic, hydrographic, mining, city, and geodetic surveying; measurement of volumes, projection of maps, etc. The course includes plotting survey notes, topographic symbols, lettering. Two hours a week. Field work, usually on Saturday. One drawing period a week. Assistant Professor STARR.

2. *Railroad Engineering*.—Railroad curves and earthwork; location of about a mile of railroad; laying out curves; construction of contour maps, profiles, mass diagrams, etc. Two hours a week recitation both terms and one period drawing second term; field work usually on Saturdays. Assistant Professor STARR.

3. *Highways and Pavements*.—Location of highways; construction, improvement and maintenance of roads and pavements; curbs, gutters, sidewalks. Two hours, second term. Professor MECHLIN.

4. *Materials of Construction*.—A study of the properties of stone, brick, cement, concrete, wood, iron, steel, etc., with reference to processes of manufacture. The course is supplemented by a number of practical tests made by the students. Two lectures and one laboratory period during first term. Professor MECHLIN.

5. *Surveying Instruments*.—A two-months' course for Mechanical and Electrical Engineering students, covering the use of the compass, transit, and level. Lectures and field exercises, two hours. Assistant Professor STARR.

6. *Foundations*.—A two-months' course for Mechanical and Electrical Engineering students, covering the general principles of foundation construction and the materials used. Two hours. Professor MECHLIN.

8. *A Course in Practical Astronomy for Civil Engineering Students*.—Special attention is given to the methods of determining latitude, longitude, azimuth and time with the engineer's transit; observations for

each being a required part of the course. Two lecture-recitation periods during one term. Assistant Professor STARR.

9. *Mechanical Testing*.—A laboratory course in the investigation of the physical properties of engineering material, including exercises in the use of a 200,000 pound Olson Testing Machine. Eighteen periods of two hours each in the second term.

Second Section. For Undergraduates and Graduates

20. *Masonry Construction*.—A course in the use of cement, brick, stone, and concrete, the design of foundations, retaining walls, dams, bridge piers and arches. Included in this is a short course in stereotomy. Two lectures and two design periods. Professor MECHLIN.

21. *Hydraulic Engineering*.—The design and construction of water-power plants and irrigation works. Flow of rivers; rainfall and runoff; methods of development; hydraulic motors; power transmission. Irrigation plans; distributing system; water rights and irrigation law. Four lectures and two design periods, second term. Professor DUNSTAN.

22. *Theory of Structures*.—A course covering the determination of stresses in framed structures by graphical and by analytical methods. The first term is devoted to beams and roof trusses; the second to bridge trusses under uniform and wheel loads. Three lectures and two design periods. Assistant Professor DUNSTAN.

23. *Theory of Structures*.—The theory of steel design; the design of a roof truss, of a plate girder and a pin connected bridge truss and a study of the theory and design of suspension, continuous, cantilever, and arch bridges, and the details of steel-mill and office-building construction. Three lectures and two design periods. Professor MECHLIN.

24. *Sanitary Engineering*.—This course treats on the drainage of buildings and lands; the treatment and disposal of sewage and the sewerage of cities and towns; public water supply and methods of water purification. Three lectures and one design period. Professor MECHLIN.

Third Section. Primarily for Graduates

50. *Advanced Masonry*.—A course in the theory and design of reinforced concrete structures. Professor MECHLIN.

51. *Advanced Masonry*.—The theory of retaining walls and arches. Professor MECHLIN.

52. *Testing of Materials*.—This course involves original research upon assigned topics. Professor MECHLIN.

53. *Water-Power Development*.—A comparative study of the principal water-power developments of the United States and Europe. The course consists largely of assigned readings and reports thereon. Professor DUNSTAN.

Electrical Engineering*First Section. Primarily for Undergraduates*

1. *Elementary Mathematical Theory of Electricity and Magnetism.*—Elementary electricity and magnetism is studied with special attention to the needs of engineering students. The phenomena accompanying static electricity are noted. Problems illustrating the theory and having practical application are required to be solved. Two hours. Assistant Professor MORTIMER.

2. *Elements of Electricity; Direct Current Motors and Generators; Design Work.*—Elements of electricity are studied during the first term and especial emphasis is laid upon the principles underlying the flow of currents. During the second term a study is made of direct current generators and motors, covering the laws of the magnetic circuit as applied to the dynamo. The course includes the design of electrical machinery and apparatus. An introductory study of alternating currents is also begun. Numerous problems are assigned throughout the course. Three hours. Assistant Professor MORTIMER.

4. *Electrical Measurements.*—A laboratory course for Juniors. Selected experiments. Foster's Hand-book and special laboratory notes are used for reference. Two three hour periods, first term. Assistant Professor MORTIMER and Mr. WOODWARD.

5. *Electrical Laboratory.*—Experiments and tests involving the operation of direct-current dynamos and motors, including tests of motors in service, operating elevators, street cars, and machinery of various kinds. Text-book: Sever and Townsend's "Laboratory and Factory Tests in Electrical Engineering." Two three-hour periods, second term. Assistant Professor MORTIMER and Mr. WOODWARD.

6. *Industrial Electricity.*—A practical course intended for Juniors in Civil Engineering, embracing the selection and operation of electrical machinery, electrical railways and other applications of electric motors. Two hours, first term. Mr. WOODWARD.

7. *Electrical Engineering.*—A course in theoretical and applied electricity intended for Seniors in Mechanical Engineering. It embraces the selection and operation of electrical machinery, the location, construction, and operation of power plants, electric railways and transmission lines, the use of electric motors for driving machinery, and the working of storage batteries, elevators, hoists, and cranes. Three hours. Mr. WOODWARD.

8. *Electrical Design.*—A course for Seniors in Electrical Engineering, embracing calculation and design of electrical machinery and accessories, including switchboards, rheostats, instruments, and arrangement of same. One recitation period and one drawing period.

Second Section. For Undergraduates and Graduates

21. *Alternating Current Theory and Machinery.*—A course for Seniors in Electrical Engineering, covering the principles of single as well as

polyphase currents, including study of machines, circuits, transformers, etc. Four hours. Assistant Professor MORTIMER.

22. *Electrical Distribution*.—A course for Seniors in Electrical Engineering, covering the whole field of distribution of electricity for light and power. Text-book: Crocker's Electric Lighting, second volume, "Distribution System." Two hours. Assistant Professor MORTIMER.

23. *Electrical Applications*.—A course for Seniors in Electrical Engineering, covering the more important applications of electricity, such as motive power, including elevators, hoists and machine drive, telephony, telegraphy, electro-metallurgy, etc. One hour. Mr. WOODWARD.

24. *Advanced Laboratory Work for Seniors in the Electrical Engineering Course*.—Covers test and experimental work with direct and alternating currents, tests of machines, circuits, transformers, circuits containing inductance and capacity, measurement of power in alternating current circuits, plotting of curves, etc. Text-book: Sever and Townsend's Laboratory and Factory Tests in Electrical Engineering, with Foster's Electrical Engineer's Hand-book for general reference. Two three-hour periods. Assistant Professor MORTIMER.

25. *Inspection of Plants and Industrial Works*.—In the vicinity of Washington and Baltimore are a number of modern electric lighting and street railway plants, telephone exchanges, telegraph operating rooms, Government laboratories devoted to special work, etc., which afford students of Electrical Engineering an opportunity to familiarize themselves with nearly all types of apparatus in use. The visits are followed by class discussion based on written description submitted by the students.

26. *Electric Lighting and Illumination*.—A course for Seniors in Electrical Engineering covering the subject of electric lighting and illumination, including detailed study of different types of lamps, shades, arrangement of light sources, effect of walls, etc. Two hours, first term. Mr. WOODWARD.

27. *Electric Railways*.—A course for Seniors in Electrical Engineering covering the theory and practice of modern, direct and alternating current railways. Two hours, second term. Assistant Professor MORTIMER.

28. *High Frequency Current*.—A lecture course covering the theory of high frequency and oscillatory currents and their application to wireless telegraphy and telephony. The condenser discharge, the theory of resonance in coupled circuits, and electromagnetic waves will be treated. The design of wireless telegraph and telephone apparatus will also be discussed. The class will meet in the laboratory from time to time to familiarize themselves with the use of wireless apparatus. One period. Dr. GORDON.

Juniors and Seniors in Electrical Engineering are expected to attend the monthly meetings of the Washington Branch of the American Institute of Electrical Engineers.

Third Section. Primarily for Graduates

52. *Advanced Course in the Mathematical Theory of Alternating Currents.*—Assistant Professor MORTIMER.

53. *Advanced Course in Polyphase Currents.*—Assistant Professor MORTIMER.

54. *Advanced Laboratory Work. Alternating (including Polyphase) Current Apparatus.*—Assistant Professor MORTIMER.

55. *Advanced Electric Railways.*—A course including a short history of electric railways, calculation of the theoretical curves, study of different systems and examples of modern installations. Philip Dawson's *Electric Traction on Railways* is used as a basis for the course. Assistant Professor MORTIMER.

Graphics*First Section. Primarily for Undergraduates*

1. *Mechanical and Freehand Drawing.*—A general course embracing the care and use of instruments; orthographic and isometric projections; sections and intersections; curve plotting; sketching of simple machine details; freehand lettering; principles of working drawings. Two three-hour periods. Assistant Professor STARR.

2. *Advanced Mechanical Drawing.*—A course in working drawings especially designed for Electrical and Mechanical Engineering students. Drawing-room rules and practice; conventional forms and standards; arrangement of views and sections; freehand shop-sketches; detailing from sketches, models and general drawing; proportioning by empirical formulas. Two three-hour periods. Assistant Professor STARR.

8. *Descriptive Geometry.*—A study of the representation of lines, surfaces, and solids, and of their relations; tangencies, intersections, and developments; warped surfaces; shades and shadows; original construction problems. Two lectures and one drawing period. Assistant Professor STARR.

Third Section. Primarily for Graduates

50. *Advanced Graphic Statics.*—A study of the graphical analysis of higher structures, with special reference to the method of influence lines. Professor DUNSTAN.

Mechanical Engineering*First Section. Primarily for Undergraduates*

1. *Mechanism.*—A course in the systematic study of the kinematics of machinery, in which mechanical movements are reduced to scientific analysis. Carefully developed problems and diagrams of changes of position and speed in mechanisms are constantly used.

Some attention is given to the design of gear teeth, and twenty-five hours in the second term are devoted to valve gears for steam engines. Three lectures and one drawing period. Mr. MORSE.

6. *Engineering Drawing*.—This course provides for the application of the principles taught in the courses of Mechanism and Steam Engineering to specific problems. Practice is given in the design of valve gears and quick return motions, and in the determination of velocity diagrams for special engine and other linkages. There is also included the complete working drawings for a steam boiler. Two three-hour periods. Mr. MORSE.

7. *Machine Design*.—This course is an application of principles already acquired to problems in design, each student being required to complete every detail of the design undertaken.

The subjects taken as design problems are:

The complete design of a horizontal single cylinder gas engine, or the design of a steam boiler, a series of shaft couplings, and a fly wheel.

The constructive details and calculations are discussed and the limitations of theoretical and empirical formulas pointed out. One lecture-recitation hour and five hours in the drawing room. Mr. MORSE.

9. *Engineering Laboratory*.—A course of practical work in testing general engineering apparatus for efficiency. The work consists in indicating steam engines; determining the evaporative efficiency of boilers; tests on the strength of materials; measurement of the flow of water; gas-engine brake tests; refrigeration tests, and fuel value determinations. Two three-hour periods, second term. Mr. MORSE.

10. *Engineering Laboratory*.—This course is a completion of Course 9. Two three-hour periods.

Second Section. For Undergraduates and Graduates

20. This course deals with the principles of thermo-dynamics; the properties of gases and vapors, especially steam, and the flow of steam through nozzles. The application of the above principles is discussed and the simple and compound steam engine and the steam turbine are studied. Three hours, first term. Dr. GORDON.

21. *Boilers and Power Plant Accessories*.—This course is devoted to a study of boilers, condensers, feed pumps, economisers, stokers, and other power-plant accessories. The design of power plants will be discussed. Three hours, second term. Dr. GORDON.

22. *Gas Engines and Compression and Refrigeration Machinery*.—This course deals with the theory and practice concerning the internal combustion motor. During the second half of the term the theories and principles involved in compression machinery and artificial refrigeration will be discussed. Three hours, second term. Dr. GORDON.

23. *Hydraulic Machinery*.—This course provides for an elementary study of hydraulic prime movers and pumping machinery. It includes

a discussion of the theory and design of turbines and turbine blades for low and high heads, and turbine governors.

The course will also treat of impulse wheels; water motors of the piston type; machinery for the utilization of hydraulic pressure; hydraulic pressure pumps, and hydraulic presses; hydraulic tools; pumps operated by steam, electricity, or power; and high duty pumps and water meters. Two hours, second term. Mr. MORSE.

24. *Cotton Machinery and Machine Tools*.—A study of the mechanisms found in cotton machinery and machine tools. Two hours. Mr. MORSE.

26. *Dynamics of Machines*.—A course including a number of the principal applications of dynamics to moving machinery, such as governors, fly-wheels, and the effect of the reciprocating parts of the steam engine. Two hours. Mr. MORSE.

27. *Power-Plant Design*.—This course provides for the design with complete plans and specifications of a power plant of industrial proportions by the student. One lecture-recitation hour and two three-hour drawing periods, first term. Dr. GORDON.

28. *Industrial Management*.—A course dealing with the business systems of manufacturing establishments.

The work includes a study of the organization and relations of the various departments of an industrial establishment, both in the office and in the workshop. It also discusses the conduct of accounts, the method of superintendence and of compensating labor, the determination of the cost of production, and the effect on costs of different systems of distributing indirect expenses. Two hours, second term. Mr. MORSE.

FRENCH

See Romance Languages.

GEOLOGY AND MINERALOGY

GEORGE PERKINS MERRILL, Ph.D.....Professor
RAY SMITH BASSLER, Ph.D.....Assistant Professor

First Section. Primarily for Undergraduates

1. *Mineralogy*.—Crystallographic, descriptive, and determinative mineralogy. This course is designed with especial reference to minerals as rock constituents or segregated as ore deposits. It includes, therefore, a discussion of not merely the crystallographic and theoretical, but the practical side of the subjects as well. Whenever possible, it should be considered as introductory to the courses in either systematic or economic geology. *Mon., Fri.*, at 5.00.

2. *Geology*.—Systematic geology; dynamical, structural and stratigraphical. The course is designed to form a part of a general-culture course, or a preliminary course for those intending to make a specialty of geology. It includes lectures, recitations, laboratory and field work

so far as hours will permit. Paleontology is treated as a branch of geology, having especial reference to stratigraphy and correlation. Text-books: Blackwelder and Barrows' *Elements of Geology*; Merrill's *Rocks, Rock Weathering, and Soils*. *Mon., Fri.*, at 5.50.

3. *Physical Geography*.—A general culture course of lectures, laboratory and field work, treating of the earth as a globe, the atmosphere, the oceans and the lands. *Tu.*, at 5.00

Second Section. Primarily for Undergraduates and Graduates

20. *Economic Geology*.—[Geology 1 and 2 and Chemistry 1 are prerequisite for this course.] The course covers the subjects comprised under: (1) Mineral veins and metalliferous deposits, their mode of occurrence, origin, and classification; (2) the ores of iron, copper, lead, zinc, tin, silver, gold, mercury, antimony, etc.; and (3) the non-metallic minerals as the coals and hydrocarbon compounds; salts and materials used in chemical manufactures; abrasive, refractory, and fictile materials, pigments, gems, ornamental stones, building stones, limes, cements, and mineral waters. Text-books: Weed's *Translation of Beck's Nature of Ore Deposits*; Merrill's *Stones for Building and Decoration and The Non-Metallic Minerals*.

21. *Paleontology*.—A course in lecture and laboratory work on the biological and geological relations of the more important types of animals and plants, with especial reference to their value in stratigraphic geology.

Third Section. Primarily for Graduates

Advanced study in Geology, both systematic and applied, is arranged to cover two years.

50. *Advanced Geology and Paleontology*.—The student in this first-year course may devote his time largely, if necessary, to perfecting himself in methods; to general work in the laboratory and in the field; to the examination of geological materials, and to familiarizing himself with the literature of the subject.

51. *Advanced Paleontology and Stratigraphic Geology*.—A continuation of Course 21. Besides the study of paleontological methods, the student is expected to pursue some special line of investigation in order to fit himself for original research.

GERMANIC LANGUAGES AND LITERATURE

HERMANN SCHOENFELD, Ph.D., LL.D.....Professor
ALFRED FRANCIS WILLIAM SCHMIDT, A.M.....Professor

First Section. Primarily for Undergraduates

1. *Elementary*.—The essentials of German grammar; translation of prose and poetry; composition and dictation. This course is open only to beginners, and the work done is equivalent to that of a two years'

course in high schools and academies of good standing. *Tu., Th., Sat.*, at 11.15. Professor SCHOENFELD.

2. Parallel with Course 1. *Tu., Th., Sat.*, at 5.00. Professor SCHMIDT.

3. Selected texts from the best contemporary authors will be read and one or more of the German classics carefully studied. The work in grammar and composition done in elementary German will be continued, with special emphasis on syntax, word-formation, and the relationship of German and English. This course is equivalent to the advanced German of the admission requirements, and it is open only to students who have passed Course 1 or 2, or have satisfied the admission requirement in elementary German. *Mon., Wed., Fri.*, at 11.15. Professor SCHOENFELD.

4. Parallel with Course 3, except that in the second term scientific German is read. *Tu., Th., Sat.*, at 5.50. Professor SCHMIDT.

5. Advanced course in German syntax; principal difficulties of the language: idioms; synonyms; extensive translations of the best English prosaists into German; essays; selected advanced prose; classical reading and literature; German history. Open to students who have passed Course 3 or have satisfied the admission requirement in advanced German. *Mon., Wed., Fri.*, at 1.45. Professor SCHOENFELD.

6. Parallel with Course 5, with special reference to advanced students both in the historico-political and the scientific departments. *Tu., Th.*, at 5.00. Professor SCHOENFELD.

Second Section. For Undergraduates and Graduates

20. *Outline of the History of German Literature and Civilization from the Origins to the Renaissance and Reformation.*—Lectures, readings, essays. *Mon., Wed., Fri.*, at 10.15. Professor SCHOENFELD.

21. *German Literature of the Classic Period at its Zenith.*—Goethe's and Winckelmann's influence on German art; with special reference to the modern German drama; classical ballad and lyric poetry; renaissance of the German *volkslied* in the eighteenth and nineteenth centuries. *Tu., Th., Sat.*, at 10.45. Professor SCHOENFELD.

Third Section. Primarily for Graduates

50. *Epic and Lyrical Poetry in the Twelfth and Thirteenth Centuries, from Heinrich von Veldeke to Gottfried von Strassburg.* Professor SCHOENFELD.

51. *Gothic.*—Introduction to comparative Indo-European Grammar. Two hours. Professor SCHMIDT.

52. *Old High German.*—The development of the German language. Two hours. Professor SCHMIDT.

Only one of the foregoing two courses (51, 52) is given in any one year.

For notice of the Richard Heinzel Germanic Library, see page 38.

GRAPHICS

See Engineering.

GREEK

See Classical Language.

HISTORY

CHARLES CLINTON SWISHER, Ph.D., LL.D.....	Professor
BLAINE FREE MOORE, A.M.....	Assistant Professor
LEVI RUSSELL ALDEN, A.M.....	Assistant Professor

First Section. Primarily for Undergraduates

1. *Mediaeval History*.—A history of the settlement of the Germanic tribes in the territory of the Empire, with a study of feudal institutions, extending through the movements of the Crusades; texts, with assigned readings. First half-year. *Mon., Wed., Fri.*, at 2.45. Professor SWISHER.

2. *Mediaeval History*.—A history of the evolution of national government extending through the periods of the Renaissance and the Protestant Revolution; texts and assigned readings. Second half-year. *Mon., Wed., Fri.*, at 2.45. Professor SWISHER.

3. *Modern European History*.—A study of the European States under the new conditions resulting from the discovery of America and the opening of the oriental trade routes, extending through the period of the French Revolution; texts, lectures, and collateral readings. First half-year. *Mon., Wed., Fri.*, at 3.45. Professor SWISHER.

4. A continuation of the preceding through the revolutionary movements of the nineteenth century, with a more detailed study of recent issues; texts, lectures, and collateral readings. Second half-year. *Mon., Wed., Fri.*, at 3.45. Professor SWISHER.

5. *Mediaeval History*.—Parallel with Course 1. First half-year. *Tue., Th., Sat.*, at 5.50. Professor SWISHER.

6. *Mediaeval History*.—Parallel with Course 2. Second half-year. *Tu., Th., Sat.*, at 5.50. Professor SWISHER.

Second Section. For Undergraduates and Graduates

25. *English History*.—A general course with particular attention to constitutional and political development. Text-book, lectures and assigned readings. *Tu., Th., Sat.*, at 11.15. Assistant Professor MOORE.

30. *American Constitutional History*.—A history of the origin and development of the Federal Constitution of 1789, with a study of its interpretation under the pressure of party issues. Lectures, text-books, and collateral readings. *Tu., Th., Sat.*, at 5.00. Professor SWISHER.

33. *Current History*.—A discussion of political questions of the day,

with special reference to their origin and historical significance. Lectures throughout the year. *Sat.*, at 11.15. Professor SWISHER.

Third Section. Primarily for Graduates

54. *Seminar Work*.—The results of individual research, conducted by graduate students upon assigned topics, will be discussed at the weekly meetings of the seminars of American and Modern European History.

Undergraduate students qualified by previous historical study, who desire to do intensive work with a view to gaining fuller information upon special periods or facility in the use of historical materials, may, with the approval of the instructor, be admitted to the historical seminars.

INTERNATIONAL LAW AND DIPLOMACY

CHARLES HERBERT STOCKTON, LL.D..... In charge of Department
BLAINE FREE MOORE, A.M..... Assistant Professor

For Undergraduates and Graduates

20. *Principles of International Law*.—A detailed course in the nature, sources and sanctions of International Law, including the usages and immunities of Diplomacy, the questions of treaties, the duties and practice of Consular officers and the history and organization of the Department of State. A series of lectures and assigned readings by the President, supplemented by case instructions by Assistant Professor MOORE. *Wed.*, at 5.00. President STOCKTON. *Mon., Fri.*, at 5.00. Assistant Professor MOORE.

Third Section. Primarily for Graduates

54. *Conflict of Laws or Private International Law*.—A course dealing with private law in its international aspects. Among the topics treated are marriage and divorce, guardianship, wills, and the administration of estates, bankruptcy, and foreign judgments. Open only to students who have had instruction in the fundamental subjects of American Law. Two hours. Professor GREGORY.

LATIN

See Classical Languages.

MATHEMATICS

HOWARD LINCOLN HODGKINS, Ph.D..... Professor
ASAPH HALL, JR., Ph.D..... Professor
H. GRANT HODGKINS, A.B..... Instructor
WILLIAM WRIGHT FRASER, A.B., B.L..... Lecturer

First Section. Primarily for Undergraduates

3. *Solid Geometry; College Algebra; Plane Trigonometry.*—Mon., Wed., Fri., at 9.15. PROFESSOR HODGKINS.

4. *Algebra; Plane Trigonometry.*—Mon., Wed., Fri., at 5.00. MR. HODGKINS.

6. *Solid Geometry; College Algebra; Plane Trigonometry.*—Mon., Wed., Fri., at 5.50. MR. HODGKINS.

9. *Trigonometry; Analytic Geometry.*—Mon., Wed., Fri., at 10.15. PROFESSOR HODGKINS.

12. *Trigonometry; Analytic Geometry.*—Mon., Wed., Fri., at 5.50. PROFESSOR HODGKINS.

Second Section. For Undergraduates and Graduates

20. *Differential and Integral Calculus; Elements of differential Equations.* Tu., Th., Sat., at 5.00. PROFESSOR HODGKINS.

21. *Differential and Integral Calculus; Elements of differential equations.* Tu., Th., Sat., at 9.15. PROFESSOR HODGKINS.

Third Section. Primarily for Graduates

50. *Differential Equations.*—PROFESSOR HODGKINS.

58. *Celestial Mechanics.*—Theory of central forces; theory of parabolic and elliptic orbits. Lectures, with reading from the works of GAUSS, OPPOLZER, and MOULTON. PROFESSOR HALL.

59. *Vector Analysis.*—This course is designed to give the elements of an analysis based chiefly on the method of the late Professor Gibbs (of Yale), but extended so as to embrace the quaternion idea. Application is made to problems in both Geometry and Physics, including vector calculations applied to alternating currents. MR. FRASER.

MECHANICAL ENGINEERING

See Engineering.

METEOROLOGY

WILLIS LUTHER MOORE, D.Sc., LL.D. Professor
WILLIAM JACKSON HUMPHREYS, Ph.D. Professor

Third Section. Primarily for Graduates

50. *Applied Meteorology.*—Investigation of the underlying laws governing meteorological phenomena and of the methods employed in practice for their interpretation and applications. PROFESSOR MOORE.

51. *Meteorological Physics.* This course presupposes collegiate training in general physics. Particular attention will be given to the interpretation of meteorological phenomena in the light of modern physics; and those wishing to make this their principal study will be assisted in

the selection of a suitable problem for investigation and advised in the collection of data necessary to its solution. Professor HUMPHREYS.

NAUTICAL SCIENCE

GEORGE WASHINGTON LITTLEHALES, C.E. Professor

First Section. For Undergraduates

1. *Nautical Science*.—Navigation; nautical astronomy; nautical almanac; production and use of nautical charts; tides; applications of meteorology and oceanography to navigation; theory and use of instruments of navigation. Professor LITTLEHALES.

Third Section. For Graduates

50. *Nautical Science*.—Special study of one or more topics. Conferences, assigned readings, direction of research. Professor LITTLEHALES.

PHILOSOPHY AND PSYCHOLOGY

WILLIAM CARL RUEDIGER, Ph.D. Professor
EDWARD ELLIOTT RICHARDSON, Ph.D. Acting Professor

First Section. Primarily for Undergraduates

1. *General Psychology*.—An introductory study of the principal facts and laws of the mental life. *Mon., Fri.*, at 10.15. Professor RUEDIGER.

2. *General Psychology*.—Parallel with Course 1. *Mon., Fri.*, at 5.00. Professor RUEDIGER.

3. *Logic and Theory of Knowledge*.—Principles of deductive and inductive inference, followed by a study of the nature and structure of knowledge, its organization, and its relation to language. *Wed.*, at 10.15. Professor RUEDIGER.

4. *Logic and Theory of Knowledge*.—Parallel with Course 3. *Wed.*, at 5.00. Professor RUEDIGER.

(Courses 1 and 3, or 2 and 4 are planned to be taken together, but may be taken separately and are intended to satisfy the requirements in Psychology and Logic of Groups I to IV (pp. 70-71). They are introductory to the remaining courses in Philosophy and Education, and should be taken in the Sophomore year by students intending to pursue advanced courses or courses in Education.)

Second Section. For Undergraduates and Graduates

20. *History of Philosophy*.—The more important epochs in the history of thought. Attention is directed to the relation of these distinctive periods to the course of the world's progress. First half-year. *Mon., Wed., Fri.*, at 11.15. Professor RICHARDSON.

21. *Ethics*.—A historical and theoretical course, with the aim of acquainting the student with the principal ethical theories. Reference is made to the application of these theories to concrete conditions. Second half-year. *Mon., Wed., Fri.*, at 11.15. Professor RICHARDSON.

24. *History of Philosophy*.—The development of philosophy, its nature and problems. This course while introductory is designed to be comprehensive and to give the student a general survey of the philosophic field. *Tu., Th.*, at 5.00. Professor RICHARDSON.

25. *Experimental Psychology*.—An introductory laboratory course. Experiments on sensation, movement, effects of practice, memory and association, emotional manifestations, etc. This course may be taken parallel with Course 1 or 2. Professor RUEDIGER.

27. *Recent Philosophical Movements*.—A consideration of the various philosophical movements and tendencies of the immediate past. A critical study of the occasion and meaning of the trend of thought at the present time. Lectures and reading of recent books and periodicals. *Wed.*, at 5.00. Professor RICHARDSON.

28. *Philosophy of Nature*.—A critical examination of the concepts of physical science. An investigation of the significance of scientific laws and theories. One hour. Not given in 1913-14. Professor RICHARDSON.
(Courses 24 and 25 are given in alternate years)

Third Section. Primarily for Graduates

50. *Seminar in Psychology*.—Selected fundamental problems. Not given in 1913-14. Professor RUEDIGER.

51. *Metaphysics*.—The principles of metaphysics and the problems of philosophy. An advanced course tracing the origin and development of metaphysical questions, and a critical examination of the attempted solution of these problems. Readings, conferences and written reports. Professor RICHARDSON.

PHYSICS

HOWARD LINCOLN HODGKINS, Ph.D.....	Professor
PERLEY GILMAN NUTTING, Ph.D.....	Assistant Professor
HAYNER HASKELL GORDON, Ph.D.....	Instructor
CHARLES EDWIN VAN ORSTRAND, S.M.....	Lecturer
HARVEY LINCOLN CURTIS, Ph.D.....	Lecturer

First Section. Primarily for Undergraduates

1. *General Physics*.—A recitation and lecture course, embracing the fundamental principles of mechanics, sound, heat, light, and electricity. The lectures are illustrated by experiments. This is a required course for Sophomores in Engineering, and may be elected by the general student who has had a college course in trigonometry. *Mon., Wed., Fri.*, at 5.00 Professor HODGKINS.

2. *Laboratory Physics*.—A selected series of experiments, mainly quantitative. Two two-hour periods. *Tu., Th.*, at 10.15 or *Tu., Th.*, at 7.30. Professor HODGKINS and Dr. GORDON.

3. *Introductory General Physics*.—A lecture and recitation course, similar to Course 1, but less mathematical, and planned with reference to the needs of the general student. *Mon., Wed., Fri.*, at 1.45. Professor HODGKINS.

Second Section. For Undergraduates and Graduates

21. *Heat*.—A lecture and laboratory course, based on Preston's Theory of Heat and Poynting and Thomson's Heat. Three periods. Not given in 1913-14.

22. *Light*.—A lecture and laboratory course, based on Preston's Theory of Light and Schuster's Theory of Optics. Three periods. Not given in 1913-14.

Third Section. Primarily for Graduates

55. *Spectroscopy*.—An experimental study of the flame, arc, spark, and vacuum tube spectra of the chemical elements; variations in spectra produced by varying excitation; spectra of mixed gases and alloys; identification of elements; photography of spectra. Assistant Professor NUTTING.

57. *Kinetic Theory*.—The physical properties of gases discussed from the standpoint of general dynamics. Free path phenomena including viscosity, diffusion, heat conduction, and molecular aggregation and dissociation. Jean's Dynamical Theory of Gases. A lecture and seminar course. *Mon.*, at 4.50. Mr. VAN ORSTRAND.

58. *Elasticity*.—The physical properties of solids as applied to problems in geophysics. The theories of homogeneous stress and strain. Potential energy of strained solids. Transmission of force. Propagation of earthquake waves. Love's Mathematical Theory of Elasticity.

A lecture and seminar course. *Mon.*, 4.50. Not given in 1912-13. Mr. VAN ORSTRAND.

59. *Theoretical Electricity*.—A lecture course on the Mathematical theory of Electricity, using J. J. Thomson's Elements of Electricity and Magnetism as a basis. The fundamental propositions of electrical theory are discussed, and their applications to practical problems are pointed out. The solution of a number of problems is also required. Dr. CURTIS.

POLITICAL SCIENCE

BLAINE FREE MOORE, A.M. Assistant Professor

For Undergraduates and Graduates

20. *Elements of Political Science*.—An introductory course in political science, dealing with the origin, nature, and functions of the State;

the fundamental political concepts such as the State, sovereignty, government, law; the forms of State; the forms of government; distribution of the powers of government. Recommended as a prerequisite for the succeeding courses. Text-book and assigned reading. First half-year. *Tu., Th., Sat.*, at 10.15. Assistant Professor MOORE.

21. *American Government*.—A general introductory course to American Government. The establishment of the Federal Constitution; a descriptive study and general survey of the national government and a more detailed study of the State and local governments. Lectures, text and assigned reading. First half-year. *Tu., Th., Sat.*, at 5.00. Assistant Professor MOORE.

22. *National Government*.—A continuation of the preceding course. A detailed study of the federal government taking up the executive, Congress and the judiciary. Lectures, text and assigned reading. Second half-year. *Tu., Th., Sat.*, at 5.00. Assistant Professor MOORE.

23. *Municipal Government in the United States*.—A study of the organization and administration of city government in the United States with a limited comparative study of European conditions. The growth of cities; their relation to the state; powers and liabilities of municipal corporations; municipal problems such as those relating to local transportation, police, light and water supply, municipal ownership of public utilities. Three hours, first half-year. *Mon., Wed., Fri.*, at 1.45. Assistant Professor MOORE. Not given in 1913-14.

25. *European Governments*.—A study of the organization and actual workings of the governments of France, Germany, Italy, Switzerland; a discussion of the executive, legislative, and judiciary and internal political conditions of each country. Lectures and assigned reading. Second half-year. *Tu., Th., Sat.*, at 10.15. Assistant Professor MOORE.

41. *Constitutional Law*.—A course dealing with the fundamental principles of constitutional law; a study of cases showing the relation between the federal and state governments; constitutional powers of the federal government; power and limitations of the states in regard to commerce, police, taxation, etc. Lectures and case book. Second half-year. *Wed., Fri.*, at 5.50. Assistant Professor MOORE.

Primarily for Graduates

56. *Seminar in Political Science*.—Students competent to undertake advanced work are admitted to this seminar for the presentation and discussion of essays on topics belonging to the field of political science proper. Hours and credit to be arranged. Assistant Professor MOORE.

PREVENTIVE MEDICINE

GEORGE MILLER STERNBERG, M.D., LL.D..... Professor

Third Section. Primarily for Graduates

50. A seminar course dealing with vital statistics; etiology and prevention of infectious diseases; causes and prevention of infant mortality;

prevention of disease of occupation; protective inoculations; municipal hygiene; national and interstate preventive measures. Professor STERNBERG.

ROMANCE LANGUAGES AND LITERATURES

GEORGE NEELY HENNING, A.M. Professor
WALTER EDGAR HANCOCK, A.B. Assistant

French

First Section. Primarily for Undergraduates

1. *Grammar, Composition, Drill in Pronunciation*.—Fraser and Squair's French Grammar. Translation and reading of nineteenth century fiction and history. (400-500 pages.) For beginners. *Mon., Wed., Fri.*, at 11.15. Professor HENNING.

2. Parallel with Course 1. Fraser and Squair's French Grammar. *Tu., Th. Sat.*, at 5.50. Professor HENNING.

3. *Translation Reading, Grammar, Composition*.—Fraser and Squair's French Grammar. Mérimée's *Carmen*; other texts to be announced. Open to students who have passed in French 1 or 2, or have fulfilled the admission requirements in Elementary French. *Mon., Wed., Fri.*, at 10.15. Professor HENNING.

4. Parallel with Course 3. Fraser and Squair's French Grammar. First text, Mérimée's *Carmen*; other texts to be announced. *Tu., Th., Sat.*, at 5. Professor HENNING.

6. *General Survey of French Literature, Nineteenth to Seventeenth Centuries*.—Translation, collateral reading and reports thereon, lectures on literature and the history of the language composition. Open to students who have passed in Course 3 or 4, or have fulfilled the admission requirements in Advanced French. *Mon., Wed., Fri.*, at 3.45. Professor HENNING.

Second Section. For Undergraduates and Graduates

Courses in this group are open to students who have passed in Course 6, or who otherwise satisfy the instructor of their fitness to take them.

21. *Seventeenth Century Literature*.—History, philosophy, criticism, memoirs, letters, eloquence, drama, fiction, poetry. Balzac, Descartes, Pascal, La Rochefoucauld, La Bruyère, Boileau, Saint-Simon, Mme de Sévigné, Bossuet, Corneille, Racine, Molière, Fénelon, Malherbe, La Fontaine, etc. Translation, collateral reading and reports thereon, lectures on literature and history. Not given in 1913-14.

26. *Literature of the First Half of the Nineteenth Century*.—History, criticism, travels, fiction, drama, lyric poetry. Balzac, Baudelaire, Chateaubriand, Gautier, Hugo, Lamartine, Michelet, Musset, Sainte-Beuve, George Sand, Thierry, Vigny, etc. Translation, collateral reading and reports thereon, lectures on literature and history. *Mon., Wed., Fri.*, at 2.45. Professor HENNING.

28. *Literature of the Second Half of the Nineteenth Century*.—History, philosophy, criticism, fiction, drama, lyric poetry. Augier, Brunetière, Daudet, Dumas fils, Flaubert, France, Heredia, Leconte de Lisle, Lemaitre, Loti, Maeterlinck, Renan, Rostand, Sully Prudhomme, Taine, Verlaine, etc. Translation, collateral reading and reports thereon, lectures on literature and history. Not given in 1913-14.

Third Section. Primarily for Graduates

57. *The Comedies of Molière*.—Professor HENNING.

60. *The Romantic Movement in France, with some reference to the same movement in England and Germany*. Professor HENNING.

Other courses may be arranged for competent graduates.

Spanish

First Section. Primarily for Undergraduates

1. *Grammar, Composition*.—Hills and Ford's Spanish Grammar. Translations and reading of nineteenth century fiction and drama. Open to first-year students only by permission of the instructor. Mon., Wed., Fri., at 5.00. Mr. HANCOCK.

2. *Translation of Modern Prose and Poetry*.—With much collateral reading. Mon., Wed., Fri., at 4.00. Mr. HANCOCK.

ZOOLOGY

See Biological Science.

PROFESSIONAL DEPARTMENTS

DEPARTMENT OF LAW

FACULTY

CHARLES HERBERT STOCKTON, LL.D.....	PRESIDENT OF THE UNIVERSITY
CHARLES NOBLE GREGORY, A.M., LL.D.....	Dean and Professor of Law
MELVILLE CHURCH, LL.M.....	Professor of the Law of Patents
WALTER COLLINS CLEPHANE, LL.M.....	Professor of Law
EDWIN CHARLES BRANDENBURG, LL.M.....	Professor of Law
ARTHUR PETER, LL.B.....	Professor of Law
JOHN PAUL EARNEST, A.M., LL.M.....	Professor of Law
WENDELL PHILLIPS STAFFORD, A.M., LL.D.....	Professor of Law
JOHN WILMER LATIMER, LL.B.....	Assistant Professor of Law
EVERETT FRASER, A.B., LL.B.....	Assistant Professor of Law
HENRY CRAIG JONES, A.B., LL.B.....	Assistant Professor of Law
MERTON LEROY PERSON, A.M., LL.B.....	Assistant Professor of Law
ALFRED BUHRMAN,.....	Clerk of the Moot Court
WILLIAM CABELL VAN VLECK, A.B., LL.B.,	

Secretary of the Department of Law and Instructor in Law

COURT OF APPEALS

WILLIAM F. MATTINGLY, LL.D.....	Chief Justice
JOHN BELL LARNER, LL.D.....	Associate Justice
STANTON JUDKINS PEELE, LL.D.....	Associate Justice

LIBRARY

ULTSSES WAYNE WRIGHT, A.B.....	Assistant Librarian
NEAL BRADFORD SPAHR, A.B.....	Assistant Librarian

GENERAL STATEMENT

This Department, established in 1865, is the oldest school of law in the city of Washington. Its course of instruction for the degree of Bachelor of Laws, originally requiring but two years, was in 1898, in accordance with the recommendation of the American Bar Association, increased to three years. Since 1903 most of the important topics of substantive law have been under the charge of trained professional teachers giving their whole time to the work of legal instruction. Those branches of the law connected with practice are under the charge of professors who are actively engaged in the administration of the law either at the bar or on the bench.

In 1877 a year of graduate work, leading to the degree of Master of Laws, was added to the course of instruction offered. A special course in Patent Law was added in 1895.

In 1900 the Law Department was one of the group of law schools which organized the Association of American Law Schools, and it has remained a member of this Association since that time. This Association includes forty-three of the best and most progressive law schools of the country and is committed to the policy of advancement in legal education.

THE ADVANTAGES OF WASHINGTON FOR THE STUDY OF LAW

To students of law, the peculiar advantages of Washington are manifest. The Supreme Court of the United States is in session during practically the entire school year. Students have the rare opportunity of hearing the arguments presented by leading American lawyers and the decisions of this high tribunal, which are delivered orally each Monday, upon the important legal questions which come before that court for final determination. Congress is in session during the winter, and here students see the practical workings of the largest and most important law-making body. The Department of Justice, the legal branch of the Federal Government, is also located in Washington. Besides the above there are also the United States Court of Claims, the United States Court of Customs Appeals, the United States Commerce Court, and the various local courts of the District of Columbia. The last-named courts exercise the unusual dual function of State and Federal courts. By means of attendance upon these courts students may familiarize themselves with all branches of legal procedure.

HOURS FOR LECTURES

The hours of instruction are 7.50-8.40 a.m., 9.00 a.m.-12.00 m., and 4.50-6.30 p.m. Many of the courses are duplicated, so that a student may, if he so desires, confine his work largely either to the forenoon or to the afternoon. Students who desire, or are compelled by circumstances, to support themselves by employment in the Government Service or elsewhere, or who desire to obtain practical experience in an attorney's office in addition to their work in law school, will find this arrangement of hours especially desirable. Such students may complete the full course for the degree, confining their attendance entirely from 4.50-6.30 p.m., or attending partly from 7.50-8.40 a.m. and partly from 4.50-6.30 p.m.

LOCATION

The Department of Law occupies the entire fifth and sixth floors of the New Masonic Temple, corner of New York Avenue, Thirteenth and H Streets N. W., and is easily accessible from all parts of the city. The quarters are well equipped with commodious lecture rooms, moot court rooms, offices, the law library, and a students room.

ACADEMIC YEAR

The academic year extends through more than eight months, beginning on the last Wednesday in September and ending on the Wednesday following the Wednesday nearest the first day of June, and is divided into two half-years, the second half-year beginning in 1913-14 on the second day of February. The session of 1913-14 begins on Wednesday, September 24, and closes Wednesday, June 10. Courses are so arranged that it is possible for a student to enter at the beginning of the second semester of any year and be graduated three years from that time, receiving his degree at the Winter Convocation, held on or about February 22 of each year.

Students who apply for registration not later than two months from the close of registration or students absent for unavoidable cause for not exceeding two months may remove the condition in attendance by study for a period of one and one-half times the period of the absence, under a practitioner during such time as the Department of Law is not in session, proof thereof to be made by affidavit of the practitioner.

ADMISSION

1. *For the Degree of Bachelor of Laws.*—Applicants for admission as candidates for the degree of Bachelor of Laws must be at least eighteen years of age and must, in conformity with the requirements of the Association of American Law Schools, of which this school is a member, have either of the following qualifications: (1) They must have completed a four years course in an approved high school. (2) They must have educational training sufficient to satisfy the entrance requirements of Columbian College of the University. In order to satisfy the latter requirements, students must present credits aggregating 15 units, which are broadly equivalent to a four years high school course. A unit represents approximately one year's study in a subject in a preparatory or high school. The fifteen units must include English 3 units, Mathematics 2½ units, and 2 units of one of the following languages: Latin, Greek, French, German or Spanish. The remaining 7½ units are elective. Units may be satisfied in general as follows:

English, 3 units

Requirements recommended by the Conference on Uniform Entrance Requirements in English, February 22, 1909, in Grammar, Composition and Literature.

Latin

Elementary, 2 units
Grammar and Composition
Caesar
Advanced, 2 units
Cicero
Virgil
Prose Composition

Greek

Elementary, 2 units
Grammar and Composition
Xenophon
Advanced, 1 unit
Homer

French

Elementary, 2 units
Advanced, 2 units

Spanish

Elementary, 2 units

German

Elementary, 2 units
Advanced, 2 units

History

Ancient, 1 unit
Greek and Roman
Mediaeval and Modern
European, 1 unit
English, 1 unit
American and Civil Gov-
ernment, 1 unit

Mathematics

a. Algebra

Elementary, 1 unit
Intermediate, $\frac{1}{2}$ unit
Advanced, $\frac{1}{2}$ unit

b. Plane Geometry, 1 unit

c. Solid Geometry, $\frac{1}{2}$ unitd. Plane Trigonometry, $\frac{1}{2}$ unit

Physics, 1 unit

Recitations and Labora-
tory work

Chemistry, 1 unit

Recitations and Labora-
tory work

Other subjects which will be accepted on the basis of one unit for a year's work are botany, zoology, physiology, physiography, political economy and other accredited high school subjects.

Manual Training High School subjects:

Shopwork, not exceeding 2 units

Domestic Science, not exceeding 2 units

Domestic Arts, not exceeding 2 units

Business High School subjects:

Accounting and Finance, 1 unit

Bookkeeping, 2 units

Business Organization, 1 unit

Commercial Law, 1 unit

Government and Industrial Problems, $\frac{1}{2}$ unit

Commercial History, $\frac{1}{2}$ unit

Commercial and Physical Geography, $\frac{1}{2}$ unit

Applicants for admission on certificate should secure formal certificates setting forth the credits claimed, and present these certificates attached to their application forms. All applications for admission should be addressed to the Secretary of the Department of Law, who will, upon request, furnish proper blanks and detailed information as to entrance examinations.

2. *For the Degree of Master of Laws or Master of Patent Law.*—Candidates for these degrees must be at least twenty-one years of age and hold the degree of Bachelor of Laws from an institution substantially complying with the requirements of the Association of American Law Schools, of which this school is a member.

3. *Special Students.*—Persons who for any reason do not qualify as candidates for a degree may, with the assent of the professors whose courses they elect to take, be admitted as special students.

4. *Auditors.*—Persons are allowed to register and to attend classes as auditors for the regular tuition fees without being required to take active part in the exercises or to pass examinations, but no credit will be allowed for such attendance only.

ADVANCED STANDING

Students may be admitted to advanced standing in the second or third year classes upon satisfying the requirements for the work of the preceding year or years. These requirements may be met by presenting a certificate from any law school of accredited standing showing that the student has successfully completed equivalent courses, or by passing the regular examinations set for that purpose at the beginning of the term, after the student has shown that he has pursued a course of study in a law school in the subjects upon which he is examined, covering at least as many hours as are required for such subjects in this University. No credit is given for study pursued in a law office, except as explained above under the statement as to the Academic Year.

All examinations that may be required of applicants for advanced standing are held during the first week of each session.

CREDIT GIVEN BY OTHER SCHOOLS FOR WORK DONE

Because of the fact that the Law Department is a member of the Association of American Law Schools the work certified by it is given a maximum of credit by the other law schools of the country both as to time and, as far as the authorities of this school have been able to ascertain, as to subjects. This enables students who, for any reason, are unable to complete their work in Washington to continue it at other institutions with a minimum loss of time and work.

METHOD OF INSTRUCTION

Instruction in subjects of substantive law is based mainly upon the study and discussion of cases.

In the discussions in the class room every effort is made to lead the student to a clear understanding of fundamental legal principles and to afford him scientific training in the best method of study and legal reasoning.

These courses are given mainly by members of the law faculty who give their entire time to the Law School and are in daily attendance.

Subjects involving the adjective law are taught by lectures, study of text-books and cases, and by practical work in pleading, drafting and the trial of moot cases. These courses are in charge of experienced members of the bar in active practice.

COMBINED SIX-YEAR COURSE FOR THE DEGREES OF BACHELOR OF ARTS
AND BACHELOR OF LAWS

Regular students in this course will complete three years of work aggregating forty-five hours in Columbian College, including one of the four groups of prescribed subjects, and will complete in the Department of Law the three-year course for the degree of Bachelor of Laws. On the completion of the prescribed forty-five hours of work in Columbian College and the first year of the regular course in Law, the student will receive the degree of Bachelor of Arts.

COURSES OF INSTRUCTION

A. Leading to the Degree of Bachelor of Laws

The course of instruction leading to the degree of Bachelor of Laws extends through a period of at least three years. An average of twelve hours class work per week for three years is required of all candidates for this degree.

Students devoting their whole time to the study of law may, with the permission of the Dean, select additional subjects from the second and third years, provided the aggregate of the hours taken does not exceed fifteen a week. Such excess credits may be applied toward the degree of Master of Laws or of Master of Patent Law.

Students not devoting their whole time to the study of law are urged to devote more than three years to the completion of the course. Many students find it more satisfactory to do so. In case of unsatisfactory work students are required so to extend the period of study.

FIRST YEAR SUBJECTS

First Semester

**Contracts* (A).—Professor GREGORY. Three hours a week. Williston's Cases on Contracts.

Criminal Law and Procedure.—Professor EARNEST. Three hours a week. Clark's Criminal Law and Mikell's Cases on Criminal Law. Clark's Criminal Procedure and selected cases.

Domestic Relations.—Mr. VAN VLECK. Two hours a week. Kales' Cases on Persons.

**Property I* (A).—Assistant Professor FRASER. Two hours a week. Gray's Cases on Property, Volume I.

**Torts* (A).—Assistant Professor JONES. Two hours a week. Ames & Smith's Cases on Torts. Vol. I, Third Edition; Vol. II, Second Edition.

Second Semester

Agency.—Assistant Professor FERRON. Three hours a week. Wambaugh's Cases on Agency.

* *Required Subjects*

**Contracts* (B).—Professor GREGORY. Three hours a week. Williston's Cases on Contracts.

**Property I* (B).—Assistant Professor FRASER. Four hours a week. Gray's Cases on Property, Vols. I and II.

**Torts* (B).—Assistant Professor JONES. Two hours a week. Ames & Smith's Cases on Torts. Vol. I, Third Edition; Vol. II, Second Edition.

SECOND YEAR SUBJECTS

First Semester

**Common Law Pleading and Practice*.—Professor CLEPHANE. Two hours a week. Tyler's Stephen on Pleading.

**Equity* (A).—Professor STAFFORD. Two hours a week. Ames' Cases on Equity Jurisdiction.

**Evidence* (A).—Professor PETER. Two hours a week. McKelvey on Evidence and Thayer's Cases on Evidence.

Insurance.—Assistant Professor FRASER. Two hours a week. Wambaugh's Cases on Insurance. (Given in 1913-14 and in alternate years thereafter.)

Municipal Corporations.—Assistant Professor JONES. Two hours a week. Beale's Cases on Municipal Corporations. (Not given in 1913-14 and in alternate years thereafter.)

**Property II* (A).—Assistant Professor FRASER. Three hours a week. Gray's Cases on Property, Vols. II and III.

Sales.—Assistant Professor FERRON. Three hours a week. Williston's Cases on Sales. Second Edition.

Second Semester

Brief Making.—Assistant Professor LATIMER. One hour a week.

Damages.—Assistant Professor JONES. Two hours a week. Beale's Cases on Damages. (Given in 1913-14 and in alternate years thereafter.)

**Equity* (B).—Professor STAFFORD. Two hours a week. Ames' Cases on Equity Jurisdiction.

Equity Pleading and Practice.—Professor CLEPHANE. One hour a week. Text-book to be announced.

**Evidence* (B).—Professor PETER. Two hours a week. McKelvey on Evidence and Thayer's Cases on Evidence.

Partnership.—Mr. VAN VLECK. Two hours a week. Gilmore's Cases on Partnership. (Not given in 1913-14 and in alternate years thereafter.)

**Property II* (B).—Assistant Professor FRASER. Three hours a week. Gray's Cases on Property, Vol. V.

Public Service Companies.—Assistant Professor JONES. Two hours a week. Wyman's Cases on Public Service Companies. Second edition. (Not given in 1913-14 and in alternate years thereafter.)

* Required Subjects.

Quasi Contracts.—Mr. VAN VLECK. Two hours a week. Scott's Cases on Quasi-Contracts. (Given in 1913-14 and in alternate years thereafter.)

THIRD YEAR SUBJECTS

First Semester

Bankruptcy.—Professor BRANDENBURG. One hour a week.

**Bills and Notes*.—Assistant Professor FERNON. Three hours a week. Hufcutt's Negotiable Instruments. Statutes, Cases and Authorities. Second Edition.

Conflict of Laws (A).—Professor GREGORY. Two hours a week. Lorenzen's Cases on Conflict of Laws.

**Moot Court*.—Professors CLEPHANE, EARNEST and LATIMER. Two hours a week.

Patent Law (A).—Professor CHURCH. Two hours a week.

Preparation of Legal Instruments.—Assistant Professor LATIMER. One hour a week.

**Private Corporations (A)*.—Assistant Professor JONES. Two hours a week. Warren's Cases on Corporations.

Suretyship.—Assistant Professor JONES. Two hours a week. Ames' Cases on Suretyship.

Second Semester

Conflict of Laws (B).—Professor GREGORY. Two hours a week. Lorenzen's Cases on Conflict of Laws.

Constitutional Law.—Assistant Professor FRASER. Two hours a week. Case book to be announced. (Not given in 1913-14 and in alternate years thereafter).

Federal Procedure.—Professor BRANDENBURG. One hour a week.

Legal Tactics and Ethics.—Professor CLEPHANE. One hour a week.

**Moot Court*.—Professors CLEPHANE, EARNEST and LATIMER. Two hours a week.

Organization and Management of Corporations.—Professor CLEPHANE. One hour a week. Clephane on the Organization and Management of Corporations.

Patent Law (B).—Professor CHURCH. Two hours a week.

**Private Corporations (B)*.—Assistant Professor JONES. Two hours a week. Warren's Cases on Corporations.

Trusts.—Assistant Professor FERNON. Three hours a week. Ames' Cases on Trusts.

Wills and Administration.—Professor PETER. One hour a week.

Second and third year subjects, not required and given in alternate years, are open to both second and third year students.

* Required Subjects.

B. Leading to the Degree of Master of Laws

Students admitted as candidates for the degree of Master of Laws are required to elect subjects, not previously taken covering a minimum of ten hours a week. These may be freely elected from the subjects offered by the Faculty of Law and from International Law given in Columbian College.

Any excess credits obtained in this Law School in the course leading to the degree of Bachelor of Laws may be applied toward the Master's degree. The degree of Master of Laws will not be conferred, however, until one year after the receipt of the Bachelor's degree.

Advanced Practice.—Candidates for the Master's degree may also elect advanced practice work in the Moot Court, receiving therefor a credit of two hours for the year.

C. Leading to the Degree of Master of Patent Law

A candidate who has successfully completed the requirements prescribed for the degree of Master of Laws, if he has duly completed and received credit for the courses in Patent Law and Federal Procedure, may elect to become a candidate for the degree of Master of Patent Law instead, and that degree may be conferred upon him, but the above mentioned topics shall be counted only toward one degree, and shall not be available for the degree in Patent Law, if they have been counted toward any other degree.

COURSE IN PATENT LAW

A special course in Patent Law and Patent Law Practice is given by Professor Church. The purpose of this course is to prepare those taking it for practice in all matters involving the law of patents. The course extends throughout one year, with two lectures or sessions of the Moot Court each week.

This course may be elected and counted by students toward the degree of Bachelor of Laws, and such students will be required to take only the first semester of the regular moot court work. A certificate, under the seal of the University, is granted to all students who complete this course.

COURSES IN PRACTICE**A. Moot Court Work**

1. *For the Degree of Bachelor of Laws.*—Particular stress is laid upon moot court work. Aside from the practice court connected with the course in Patent Law, there are four courts in which undergraduate students pursue their work. Three of these are *nisi prius* courts and are presided over by members of the Washington Bar in active practice. The fourth is a Court of Appeals to review the cases tried in the courts of first instance. This court is composed of the ex-Chief Justice of the United States Court of Claims and of members of the Washington Bar.

Every third-year student, before receiving the Bachelor's degree, is required to prepare the pleadings in and prosecute to judgment the required number of cases in the *nisi prius* courts, with the privilege of appeal to the appellate tribunal. At least two hours in each week during the year must be spent by each third year student in active participation in moot court work in the court room to which he is assigned. Students electing Patent Law will be required, in view of the special moot court work in that course, to take only the first half-year of the regular moot court work.

Statements of facts are furnished, such as would be related to a lawyer in active practice by his client. Each student must determine whether or not upon such facts the particular case in hand is one of common law or equitable cognizance. He must then frame his pleadings, serve his writs, and answer his adversary's pleadings until issue is joined in legal manner, after which the case is brought on for hearing in strict accordance with the rules of actual practice. Juries are empaneled in accordance with settled legal procedure, witnesses are examined and cross-examined, and the case conducted through all the various stages of the trial or hearing down to and including the judgment or decree, after which, should the case be appealed, it must be carried through the appellate court, involving the preparation of the record on appeal, briefs of counsel, etc.

2. *For the Degree of Master of Laws.*—The same facilities for moot court work as are described above are afforded in the course leading to the degree of Master of Laws. In this course, however, the nature of the cases assigned is somewhat different, involving, in addition to the ordinary cases at common law or in equity, cases of a special character, such as habeas corpus, certiorari, quo warranto, injunction, mandamus, extradition, replevin, attachment, etc. All candidates for this degree taking moot court work are required to carry through the appellate court each case assigned to them.

3. *Officers and Equipment.*—The clerk of the Moot Court is one of the assistant clerks of the Supreme Court of the District of Columbia, but his assistants in each court room are chosen from the student body, from whose ranks are also drawn the criers, jurors, and other officials, thus giving to the students the benefit of practice in administrative judicial machinery. The Moot Court is to all intents and purposes an actual court. The rooms in which the sessions are held are fitted up with judges' benches, clerks' desks, and counsel tables, and from the time the crier announces that the court is in session until he announces its adjournment the procedure is identical with that of a regular judicial tribunal.

It is believed that any student who gives the proper attention to this feature of the law curriculum will be enabled to go out from this institution and creditably try cases in court, although he may never have been in an actual court room.

A careful record is kept of the work of each student, both as to his

pleadings and his conduct of the case in court, and the ratings thus given determine, in connection with his ratings upon other subjects, whether or not he is entitled to a degree.

B. Brief Making

In view of the rapidly increasing bulk of our case law, it becomes absolutely indispensable that students should be taught to find authorities in point, to collate them, and to present them to the court in a clear and concise form. In order to afford this training a course in Brief Making is given. This course will be conducted in part in the Library of the Department of Law, so that the use of the digests and reports may be illustrated.

C. Preparation of Legal Instruments

Students are instructed in this course in the actual preparation of deeds, mortgages, wills, assignments, contracts, partnership agreements, and other legal instruments which a lawyer is called upon to prepare. Statements of facts are furnished to the class by the professor in charge, and each student is required to prepare the various forms of instruments. These are corrected by the professor and are discussed and criticised in class. Careful consideration is given to special forms of execution and acknowledgment when one of the parties to the instrument is a corporation, a partnership, a married woman, and the like.

D. Legal Tactics and Ethics

Every young lawyer entering upon his professional career is desirous of availing himself of the experience of an older practitioner and of learning many things which are not taught and cannot be taught from books. It is to meet the needs of this class of men that this course is given. It is in charge of a member of the Washington Bar whose practice has been an active one, extending over a period of many years.

A short introductory talk is given upon the relations between attorney and client, including the important subject of fees, after which the student is given the benefit of practical hints upon the manner of starting in practice and opening and furnishing an office, with suggestions as to office systems.

The student is told how to listen intelligently to his client's grievances; how to draw up the pleadings arising out of these grievances; how to prepare for trial the case thus made, including the work of preparing the evidence; how to try the case and examine and cross-examine witnesses; the manner of making up the record, and conducting the argument on appeal, including the use of authorities in court. The Canons of Professional Ethics adopted by the American Bar Association are studied in this course. Practical instruction in Extraordinary Legal Remedies constitutes a part of this course.

EXAMINATION AND GRADES

Regular Examinations.—Written examinations are held at the close of each semester. These examinations are final as to the work of that semester. All students, unless specially excused by the Dean, are required to take the regular examinations in the subjects pursued.

No student, except by special permission of the Dean, will be allowed to take an examination in any subject unless he shall be regularly registered and have been in regular attendance upon the lectures and have done all the work required in the course of instruction upon that subject.

Grades.—At all examinations the grading of students will be indicated by the letters A, B, C, D, E, and F, representing, respectively, *excellent*, *good*, *satisfactory*, *fair*, *conditioned*, and *failed*.

Conditions and Failures.—A student receiving the grade of F (failed) in any subject will be required to repeat the subject.

A student receiving the grade of E (conditioned) in any subject will be required to repeat that subject unless he pass the *next* regular examination for removal of conditions with a grade of at least C.

Regular examinations for the removal of conditions are held during the first week of each academic year. Application for permission to take these examinations must be made in writing to the Secretary of the Department of Law not later than three days before the date for which the examination is scheduled. Special examinations for the removal of conditions are held at the end of each academic year for the benefit of candidates for the Bachelor's degree, who have been conditioned in not more than six semester hours during their last year.

The instructors of the first year class are a committee to pass on the eligibility of a student to re-register, with power to warn for deficiency, and to refuse re-registration to any student whose work is deemed unsatisfactory.

Special Examinations.—No special examinations, other than those above provided for, will be granted to any students except those of the graduating class who, for good cause, shall have been excused by the Dean from taking any regular examination during the third year.

Attendance.—Regular attendance is required in all courses; and the examination grade of any student in any course may be withheld and the passing of another examination or the repetition of the course may be required on the sole ground of unsatisfactory attendance.

Election of Courses.—No student shall be allowed to register in courses aggregating more than fifteen hours during any one semester without first obtaining the permission of the Faculty.

Every student who is a candidate for graduation with the degree of Bachelor of Laws in his third year shall take and pass in each semester of this third year courses aggregating ten hours.

Election of courses to be taken must be made in all cases within ten days after the beginning of the semester in which such courses are given.

DEGREES

1. *Bachelor of Laws*.—The degree of Bachelor of Laws will be conferred upon students who have studied law for a period of at least three years and passed satisfactory examinations upon subjects aggregating thirty-six year hours, and whose attendance and conduct have been satisfactory to the Faculty. The degree will not be conferred upon students deficient in Bills and Notes, Common Law Pleading and Practice, Contracts, Corporations, Equity, Evidence, Moot Court, Property I and II and Torts.

The degree of Bachelor of Laws *with distinction* will be awarded to students whose average percentage in all subjects is equivalent to the grade of A.

2. *Master of Laws or Master of Patent Law*.—The degree of Master of Laws or Master of Patent Law will be conferred upon students who have completed the work prescribed for these degrees with the grade of C or better, and whose attendance and conduct have been satisfactory to the Faculty.

LAW LIBRARY AND READING-ROOM

A well-equipped working library, comprising about 6,000 volumes, is open to the students from 8.30 a.m. to 10.00 p.m. Competent librarians are in charge and will give students assistance in looking up subjects and in the use of books.

The library contains the complete decisions of the highest courts of thirty-four states and the District of Columbia, the complete reports of the United States Supreme Court and the other Federal courts, the complete National Reporter System, the Century, Decennial and American Digests, the various encyclopaedias of law, the Lawyers Reports Annotated, the American Decisions, American Reports and American State Reports, the English Common Law and Chancery Reports, the English Reprints, the Law Journal Reports since 1865, and about eight hundred standard text-books, and legal periodicals.

In addition to these facilities, the students have free access to the Congressional Library, and other public libraries.

PRIZES

The Ordranax Prize Scholarship.—A prize scholarship, known as "The Ordranax Prize Scholarship," is awarded to that member of the Second Year Class taking the regular course, who shall during his first and second years attain the highest average grade. In determining the average grade of contestants the grade received in each subject shall be multiplied by the number of hours given to such subject and the sum of the results divided by the total number of hours. The recipient of this prize scholarship shall be entitled to receive credit for tuition fees to the extent of ten hours' work in his third year. Library and diploma

fees will remain payable. The award of this scholarship is purely personal and will not be commuted to a cash payment, nor will it be transferable. The recipient of the scholarship must make use of the scholarship during the session next succeeding its award; otherwise, the same shall be awarded, upon like conditions, to the person having the next highest grade. This scholarship, for the session 1912-13 was awarded to Burr Shearer Stottle.

Ellsworth Prize.—A prize of twenty-five dollars in gold, offered by Mr. Fritz von Briesen, called the "Ellsworth Prize," is awarded for the best work done by a regular student in the Patent Law Course. Awarded in 1912 to Horace Greeley Macfarland.

Phi Delta Phi Prize.—The Marshall Chapter of Phi Delta Phi Fraternity, which is the local chapter, has offered a prize of twenty-five dollars cash, to be awarded to that member of the first year class taking the regular course, who shall attain the highest average grade, the grade to be determined in the same manner as the Ordranax Prize. Awarded in 1912 to Merrell Edward Clark.

American Law Book Company Prize.—A prize, offered by the American Law Book Company, of the Students Edition of "Cyc" in twelve volumes is awarded each year to the student of the Department of Law, graduating in the entire course for the LL.B. degree, with the highest scholastic standing for the entire course. This highest standing is ascertained in the same manner as the Ordranax Prize. This prize is to be awarded at Commencement. It is offered this year for the first time.

PUBLIC SPEAKING AND DEBATING

Excellent facilities for training in the art of public speaking are afforded by the two debating societies which have been organized in the Department of Law. These societies, known as the Columbian and Needham Debating Societies, meet weekly for debate. Membership in these societies is entirely optional, but their work is encouraged in every legitimate way by the Faculty, and students are urgently advised to take part in their exercises.

Intercollegiate debates are also held. Membership on the teams which represent the University in these contests must be won in preliminary contests held for such purpose. These debates are conducted under the supervision of a committee of the University Faculty.

ADMISSION TO THE BAR

By the rules of the Supreme Court of the District of Columbia, applicants for admission to the Bar are required to have studied law for three years under the direction of a competent attorney, but by those rules the course in the Department of Law of the University is regarded as discharging this requirement. Its work is also accepted as fulfilling the requirements for preliminary law study in substantially all of the other jurisdictions of the United States.

FEES

1. Matriculation fee (payable once).....	\$5
2. Annual library fee.....	3
3. Tuition fee per annum for each hour taken per week...	10
4. Late registration fee in the case of students registering for the first term after October 20, or for the second term after February 20, excepting for courses which do not begin with the terms.....	2
5. Fee for graduation.....	10
6. Fee for a certificate under the seal of the University....	2

No registration will be accepted for less than a full semester, and no change in the courses undertaken at the time of registration will be made unless approved by the Dean. *Withdrawals during the semester will be granted only on recommendation of the Dean and the approval of the President.*

The library fee will not be charged for the first half-year during which a course is completed in the case of students who enter at the beginning of the second half-year and pay the library fee for that year. Auditors are not charged matriculation and library fees.

PAYMENT OF FEES

Matriculation, library and other special fees are due in full in advance. Tuition may be paid in eight monthly installments in advance. Students unable to pay their fees monthly in advance will be required to file an acceptable personal or corporate bond for \$200 as security for future payment. In every instance all indebtedness must be discharged on or before May 1 of the current school year. Fees are payable at the office of the Treasurer of the University, 2024 G Street, or of the Secretary of the Department of Law.

BOARD AND ROOMS

A register of boarding houses is kept by the Treasurer. Accommodations cost from \$25 to \$40 a month.

For catalogues, application blanks, and further information, address

THE SECRETARY OF THE DEPARTMENT OF LAW,

The George Washington University,

New Masonic Temple, Washington, D. C.

DEPARTMENT OF MEDICINE

FACULTY

CHARLES HERBERT STOCKTON, LL.D....PRESIDENT OF THE UNIVERSITY

WILLIAM CLINE BORDEN, M.D.....Dean, and Professor of Surgery

J. FORD THOMPSON, M.D.....Professor of Surgery, Emeritus

ALBERT FREEMAN AFRICANUS KING, A.M., M.D., LL.D.,

Dean Emeritus, and Professor of Obstetrics

GEORGE NICHOLAS ACKER, A.M., M.D.,

Professor of Pediatrics and Clinical Professor of Medicine

HENRY CRÈCY YARROW, M.D.....Professor of Dermatology

DANIEL KERFOOT SHUTE, A.B., M.D.,

Professor Neuro-Anatomy and Clinical Professor of Ophthalmology

STERLING RUFFIN, M.D.....Professor of Medicine

CHARLES EDWARD MUNROE, Ph.D., LL.D.....Professor of Chemistry

CHARLES WILLIAMSON RICHARDSON, M.D.,

Professor of Laryngology, Rhinology, and Otology

JOHN WESLEY BOVÉE, M.D.....Professor of Gynecology

THOMAS ASH CLAYTOR, M.D.....Clinical Professor of Medicine

AURELIUS RIVES SHANDS, M.D.....Professor of Orthopedic Surgery

RANDOLPH BRYAN CARMICHAEL, M.D.....Professor of Dermatology

FRANCIS RANDALL HAGNER, M.D.,

Professor of Genito-Urinary Surgery and Venereal Diseases

WILLIAM CREIGHTON WOODWARD, LL.M., M.D.,

Professor of Medical Jurisprudence

ALBERT LIVINGSTON STAVELY, M.D., Clinical Professor of Dermatology

WILLIAM ALANSON WHITE, M.D.,

Professor of Psychiatry and Clinical Professor of Neurology

ARTHUR AUGUSTIN SNYDER, M.D.....Clinical Professor of Surgery

SHEPHERD IVORY FRANZ, Ph.D.....Professor of Physiology

JOHN RYDER WELLINGTON, M.D.....Clinical Professor of Surgery

DANIEL WEBSTER PRENTISS, M.D.....Professor of Hygiene

WILLIAM KENNEDY BUTLER, M.D.....Professor of Ophthalmology

FREDERICK FULLER RUSSELL, M.D.,

Professor of Pathology and Bacteriology

BUCKNER MCGILL RANDOLPH, M.D.,

Professor of Materia Medica and Therapeutics

LUTHER HALSEY REICHELDERFER, M.D., Clinical Professor of Surgery

JAMES DUDLEY MORGAN, M.D.,

Clinical and Associate Professor of Medicine

LOUIS ANATOLE LaGARDE, M.D.....Professor of Military Surgery

MONTGOMERY EARL HIGGINS, M.D.....Professor of Tropical Diseases

GIDEON BROWN MILLER, S.B., M.D...Clinical Professor of Gynecology

MATTHEW KOLLIG, A.B., M.D.....Professor of Anatomy

JULIAN MAYO CABELL, M.D.,.....Clinical Professor of Obstetrics

OSCAR BENWOOD HUNTER, M.D., Professor of Histology and Embryology

and Associate Professor of Anatomy

NOBLE PRICE BARNES, M.D.,... Associate Professor of Materia Medica
and Therapeutics, and Clinical Associate in Medicine
HURON WILLIS LAWSON, S.M., M.D... Associate Professor of Obstetrics
FRANK ADELBERT HORNADAY, S.B., M.D.,

Associate Professor of Chemistry

JOHN BENJAMIN NICHOLS, M.D.,... Associate in Medicine and Dietetics
CHARLES STANLEY WHITE, M.D..... Associate in Surgery
HARRY HAMPTON DONNALLY, A.M., M.D.,

Associate in Medicine and Clinical Associate in Pediatrics

WILLIAM FRANCIS MATTINGLY SOWERS, M.D..... Associate in Surgery
HENRY RANDALL ELLIOTT, M.D.,

Associate in Physiology and Pharmacology

EDGAR PASQUAL COPELAND, M.D..... Clinical Associate in Pediatrics
JOHN T. KELLEY, M.D..... Clinical Associate in Obstetrics
WALTER ASHBY FRANKLAND, M.D..... Clinical Associate in Medicine
J. LEWIS RIGGLES, M.D..... Associate in Anatomy and Gynecology
WALTER WATKINS WILKINSON, M.D.... Associate in Morbid Anatomy
FRANK LEECH, M.D..... Clinical Associate in Pediatrics
WILLIAM CABELL MOORE, M.D..... Associate in Physical Diagnosis
CHARLES AUGUSTUS SIMPSON, M.D..... Associate in Dermatology
JOHN BRADFORD BRIGGS, S.B., M.D.,

Associate in Bacteriology and Pathology

EDWARD GRANT SEIBERT, M.D.,

Instructor in Laryngology and Ophthalmology

WALTER HIBBARD MERRILL, M.D.... Instructor in Electro-Therapeutics
OSCAR ADDISON MACK McKIMMIE, M.D.,

Instructor in Laryngology and Otology

HOBART SOUTHWORTH DYE, M.D.,

Instructor in Laryngology and Otology

TRUMAN ABBE, M.D..... Instructor in Genito-Urinary Surgery
JOSEPH LAWN THOMPSON, M.D..... Instructor in Medicine
VIRGIL B. JACKSON, M.D..... Instructor in Gynecology
EDMUND THOMAS MURDAUGH FRANKLIN, M.D.... Instructor in Surgery
WILLIAM J. FRENCH, M.D..... Instructor in Pediatrics
ARTHUR LEROY HUNT, M.D..... Instructor in Anaesthesia
CHARLES WILBUR HYDE, M.D., Instructor in Medicine and Anaesthesia
ADAM KEMBLE, M.D..... Instructor in Genito-Urinary Surgery
HOMER GIFFORD FULLER, M.D.... Instructor in Genito-Urinary Surgery
CLINE CHIPMAN, M.D..... Instructor in Anaesthesia
GEORGE HENRY SCHWINN, M.D., Instructor in Psychiatry and Neurology
BENJAMIN RUSH LOGIE, M.D..... Instructor in Neurology
ALBERT PERKINS TIBBETS, M.D..... Instructor in Anatomy
COURSEN BAXTER CONKLIN, M.D..... Instructor in Medicine
ALEXANDER YELVERTON PEYTON GARNETT, M.D.,

Instructor in Obstetrics

HARRY HYLAND KERR, M.D.,... Instructor in Operative Surgery
WILLIAM JOHNSTON MALLORY, M.D..... Instructor in Medicine

ELIJAH WHITE TITUS, Phar.D.,M.D.,

Instructor in Physiology, Pharmacology and Obstetrics

FRANCIS MERRIAM BARNES, Jr., M.D.,

Instructor in Psychiatry and Neurology

RALPH MICHAEL LE COMTE, M.D.,

Instructor in Pathology and Bacteriology

CARL LAWRENCE DAVIS, M.D..... Instructor in Anatomy

DANIEL LERAY BORDEN, M.D..... Instructor in Surgery and Gynecology

WALTER DUVALL WEBB, M.D..... Instructor in Surgery

ALBERT ELWOOD PAGAN, M.D..... Instructor in Gynecology

THE STAFF OF THE GEORGE WASHINGTON UNIVERSITY HOSPITAL AND DISPENSARY

Hospital

STERLING RUFFIN, M.D..... Physician-in-Chief

GEORGE NICHOLAS ACKER, M.D..... Associate Physician

HARRY HAMPTON DONNALLY, M.D..... Associate Physician

BUCKNER MCGILL RANDOLPH, M.D..... Associate Physician

WILLIAM CLINE BORDEN, M.D..... Surgeon-in-Chief

JOHN RYDER WELLINGTON, M.D..... Associate Surgeon

CHARLES STANLEY WHITE, M.D..... Associate Surgeon

WILLIAM FRANCIS MATTINGLY SOWERS, M.D..... Associate Surgeon

AURELIUS RIVES SHANDS, M.D..... Orthopedic Surgeon

FRANCIS RANDALL HAGNER, M. D..... Genito-Urinary Surgeon

HENRY RANDALL ELLIOTT, M.D..... Associate Genito-Urinary Surgeon

HOMER GIFFORD FULLER, M.D..... Associate Genito-Urinary Surgeon

JOHN WESLEY BOVÉE, M.D..... Gynecologist-in-Chief

GIDEON BROWN MILLER, S.B.,M.D..... Associate Gynecologist

ALBERT FREEMAN AFRICANUS KING, A.M., M.D., LL.D.,

Obstetrician-in-Chief

HURON WILLIS LAWSON, M.D..... Associate Obstetrician-in-Chief

ELIJAH WHITE TITUS, M.D..... Assistant Obstetrician

GEORGE NICHOLAS ACKER, M.D..... Pediatrician-in-Chief

EDGAR PASQUAL COPELAND, M.D..... Associate Pediatrician

HENRY CRÉCY YARROW, M.D..... Dermatologist-in-Chief

RANDOLPH BRYAN CARMICHAEL, M.D..... Associate Dermatologist

CHARLES WILLIAMSON RICHARDSON, M.D..... Laryngologist

DANIEL KERFOOT SHUTE, M.D..... Ophthalmologist

WILLIAM KENNEDY BUTLER, M.D..... Ophthalmologist

EDWARD GRANT SIEBERT, M.D.,

Associate Laryngologist and Ophthalmologist

WALTER HIBBARD MERRILL, M.D..... Radiographer

FREDERICK FULLER RUSSELL, M.D..... Pathologist-in-Chief

FRANK ADELBERT HORNADAY, M.D., Director of the Clinical Laboratory

JOHN BRADFORD BRIGGS, M.D..... Associate Pathologist

RALPH MICHAEL LE COMTE, M.D..... Assistant Pathologist

CHARLES WILBUR HYDE, M.D.....	Anaesthetist
ARTHUR LeROY HUNT, M.D.....	Anaesthetist
CLINE CHIPMAN, M.D.....	Anaesthetist
WILLIAM LAWRENCE VAN SANT, M.D.....	Resident Physician
JOHN ADOLPH ROLLINGS, M.D.....	Assistant Resident Physician
J. IRVING SLOAT, M.D.....	Assistant Resident Physician
LOUIS ANATOLE LaGARDE, Jr., M.D.....	Assistant Resident Physician
FRANK M. CERVONN, A.B. Phar.D.....	Pharmacist
MARY WINIFRED GLASCOCK, B.N.	Superintendent of Nurses and Prin- cipal of the Training School for Nurses.
JOHN BRUCE COPPING.....	Superintendent of the Hospital

Dispensary

ALBERT FREEMAN AFRICANUS KING, M.D.....	Obstetrician-in-Chief
STERLING RUFFIN, M.D.....	Physician-in-Chief
JOHN WESLEY BOVÉE, M.D.....	Gynecologist-in-Chief
WILLIAM CLINE BORDEN, M.D.....	Surgeon-in-Chief
BENJAMIN RUSH LOGIE, M.D.....	Director of the Dispensary
WILLIAM CABELL MOORE, M.D.....	Assistant Director of the Dispensary

General Medicine

BUCKNER MCGILL RANDOLPH, M.D.....	Attending Surgeon
WALTER ASHBY FRANKLAND, M.D.....	Attending Surgeon
WILLIAM CABELL MOORE, M.D.....	Attending Surgeon
COURSEN BAXTER CONKLIN, M.D.....	Attending Surgeon
WILLIAM JOHNSTON MALLORY, M.D.....	Attending Surgeon
JOSEPH LAWN THOMPSON, M.D.....	Attending Surgeon

General Surgery

ARTHUR LeROY HUNT, M.D.....	Attending Surgeon
TRUMAN ABBE, M.D.....	Attending Surgeon
EDMUND THOMAS MURDAUGH FRANKLIN, M.D.....	Attending Surgeon
JOHN POTTS FILLBROWN, M.D.....	Attending Surgeon
WALTER DUVALL WEBB, M.D.....	Attending Surgeon

Genito-Urinary Diseases

FRANCIS RANDALL HAGNER, M.D.....	Genito-Urinary Surgeon
HENRY RANDALL ELLIOTT, M.D.....	Associate Surgeon
HOMER GIFFORD FULLER, M.D.....	Associate Surgeon
ADAM KEMBLE, M.D.....	Associate Surgeon

Gynecology

J. LEWIS RIGGLES, M.D.....	Attending Gynecologist
DANIEL LeRAY BORDEN, M.D.....	Attending Gynecologist
ALBERT ELWOOD PAGAN, M.D.....	Attending Gynecologist

HURON WILLIS LAWSON, M.D. Associate Obstetrician-in-Chief
ELIJAH WHITE TITUS, M.D. Assistant Obstetrician

EDWARD GRANT SEIBERT, M.D.....Laryngologist and Ophthalmologist

BENJAMIN RUSH LOGIE, M.D.....Neurologist
WALTER HIBBARD MERRILL, M.D.
Electro-Therapeutist and Radiographer

CHARLES AUGUSTUS SIMPSON, M.D. Attending Dermatologist

FREDERICK FULLER RUSSELL, M.D.	Pathologist
JOHN BRADFORD BRIGGS, M.D.	Associate Pathologist
RALPH MICHELL LE COMTE, M.D.	Associate Pathologist

FRANK ADELBERT HORNADAY Director

HENRY KNOX CRAIG, M.D. Librarian
EMIL WALTER. Superintendent of the Building
ANNA ELIZABETH SELLNER..... Secretary to the Dean

The *Department of Medicine of the George Washington University*, in the chronological order of establishment, is the seventeenth Medical School in the United States. The first course of lectures began in March, 1825. For many years the school was known as the National Medical College; subsequently as the Department of Medicine of the Columbian University. By virtue of an act of Congress approved January 23, 1904, the Columbian University changed its name to "The George Washington University."

When first established, and for many years thereafter, this school like most others in this country, gave only a two years' course of five months each. In 1878 the course was lengthened by the establishment of a Spring Session devoted to lectures in certain special subjects. In 1879 the course was lengthened to seven months and attendance upon three annual sessions required, and in 1893 attendance on four annual

courses was made obligatory upon all candidates for the degree of Doctor of Medicine. In order to increase the facilities for actual bedside teaching, the University Hospital and the University Dispensary were established in 1898 and made a part of the Department of Medicine. In 1902 the old Medical College building, in which the exercises had been held since 1867, gave place to the present large and commodious structure.

EDUCATIONAL POSITION

The Medical Department of the University has been for several years a member of the Association of American Medical Colleges. It is one of Medical Colleges designated as "class A," by the American Medical Association, and it is accredited for all its work by the Combined (Royal) Medical Examining Boards in England.

The degree of M.D. given by the University is recognized as evidence of adequate medical education by every medical examining board in the United States and with credentials of required preliminary education, will admit the holder of the degree to any state or governmental examination.

These facts guarantee the character of the work done by the College and insures its students and graduates all the advantages which accrue from such association and recognition.

BUILDINGS AND OTHER FACILITIES

Buildings of the Medical Department

All the buildings adjoin each other and consist of the Medical College Building and the University Hospital and the University Dispensary. They are most advantageously situated in the heart of the city within one block of both systems of car lines. As the Hospital and Dispensary adjoin the College, their clinical facilities are easily accessible to the students, and the pathological material and the material for clinical microscopy and clinical chemistry afforded by the Hospital and Dispensary are directly used in the College laboratories.

Medical College Building.—A modern commodious, five-story structure, with spacious, well-lighted, well-ventilated lecture and class rooms, laboratories, and students' rooms. It has an elevator service, and is equipped throughout with steam heat, gas, electricity, and all modern improvements.

Laboratories.—Six in number (for anatomy, chemistry, physiological and clinical chemistry, histology and embryology, physiology and pharmacology, and bacteriology and pathology) are fully equipped with the most approved appliances, so that students may adequately pursue the laboratory courses and acquire the technical skill necessary in modern clinical and research methods.

University Medical Library.—Open for study and consultation from 9 a.m. to 9 p.m. with a Librarian who is a graduate of Medicine in charge. It contains at present more than 3,000 volumes, and provision is made to

add to it as published the important new works on medicine. The most important medical periodicals are regularly received. The Library is an excellent working collection, as it affords opportunity to read up adequately on the subjects presented in the courses.

Pathological Museum.—Contains a great many valuable and interesting specimens. Their number is increased by additions from time to time. These specimens are particularly valuable to the students as illustrating the changes produced by disease.

ADVANTAGES OF LOCATION

Advantages of Washington as a place for pursuing the study of medicine

This city now has nearly half a million inhabitants, providing abundant clinical material to the hospitals, which have an aggregate of over three thousand beds. In these hospitals clinical instruction, in addition to that in the University Hospital, is given by members of the Faculty.

The *great libraries and museums* connected with the various Government institutions afford unparalleled facilities for study.

The Library of the Surgeon General's Office of the United States Army is the most complete medical library in the world, and all leading medical periodicals of the world are subscribed for. All the facilities of this great library are open to *medical students*. There is also the Library of Congress, the Public Library, and the many excellent libraries of the various Government offices, all of which are open to students.

The *Army Medical Museum* affords an unrivaled opportunity for studying the conditions met with in military and general surgery. It contains on exhibition a collection of anatomical and pathological specimens unequalled by any other museum. Other Government museums are the Museum of Hygiene, in connection with the Medical Department of the Navy and the National Museum which contains the most complete and best arranged collection of *materia medica* in the world. The drugs are shown in all their processes of manufacture. The Botanic Gardens, the Smithsonian Institution, the Fish Commission, the Department of Agriculture, all afford opportunities for study both in medicine and its collateral sciences.

On account of the many advantages offered in this city, the *Army and Navy Medical Schools* have been here located. The Alumni of this College are largely represented in all public services, and have been highly successful in passing the rigid examinations given by them. Ten per cent of the total number of the regular medical corps of the United States Army are graduates of this College.

Aside from the special advantages offered for the study of medicine, the cosmopolitan character of the city of Washington, its climate (not excessively cold in winter), its beauty, and its interests, which, as it is the seat of the General Government, are broad and national, make it an ideal place for a medical student to pass his four years of study.

ADMISSION

The requirements for admission to the Department of Medicine for the session 1913-14 are as follows:

Candidates for matriculation must present creditable certificates of good moral character from two physicians in good standing.

The educational requirements for admission are:

A. The minimum requirement for admission is a four year accredited high school course or its equivalent amounting to fifteen units. The total fifteen units must be presented as no conditions are allowed.

B. A Bachelor's degree from an approved college or University.

C. Candidates not having a Bachelor's degree or who have not completed fifteen units of work in an accredited secondary school, may be admitted upon passing examinations in the following branches or presenting acceptable certificates for the same.

The credits which are acceptable for entrance are as follows:

1. *Required, 8 units.*—English 2 units, Mathematics (algebra to quadratics and plane geometry) 2 units; Language (Latin, French or German) 2 units; History 1 unit; Science taken from physics, chemistry, botany or zoology, 1 unit.

2. *Optional, 7 units.*—The optional seven units are elective and may be satisfied by high school subjects approved by the College Entrance Examination Board. These subjects are English, Mathematics, Latin, Greek, Modern Language, History, Physics, Chemistry, Botany, Zoology, Physiography, Drawing, Shop-work and Music.

A unit is the credit value of 36 weeks' work of five recitation periods per week, each period to be not less than 40 minutes. A point is a subject pursued through one-half the above time. Two points may be considered the equivalent of one unit.

An examination is given by the University in the latter part of May and September of each year to students who are deficient in whole or part of the above subjects. Candidates desiring examination must submit an application for the examination and submit certificates of character to the Dean before the first of the month in which they desire to be examined.

Certificates from reputable instructors recognized by the State Board of Medical Examiners duly authorized by law or by the Superintendent of public instruction in States having no examining board may be accepted in lieu of any part of the examination.

As the laws relating to the preliminary educational qualifications required of physicians differ in many of the States of the Union, candidates are advised to make themselves familiar with the provisions of the medical statutes of the States in which they contemplate applying for license to practice. Attention to this precaution may save future embarrassment.

Admission after January 1, 1914

After January 1, 1914, the minimum requirement for admission to the freshman year in Medicine will be at least one year's College work in Physics, Chemistry and Biology and a reading knowledge of at least one modern language besides English, preferably German or French.

PRELIMINARY (PREMEDICAL) YEAR

A preliminary year is offered by the University to meet the requirement of a year of College work necessary to enter the freshman class in Medicine after January 1, 1914. This year is given in Columbian College (Department of Arts and Sciences). Students taking this year are required to take the full year's work, both didactic and laboratory in Biology, Physics, Chemistry, and a Modern Language (French, German, or Spanish).

Admission to Columbian College

Candidates for admission to the Freshman Class in Columbian College must meet the general admission requirements of fifteen units. A unit represents a year's study in any subject in a secondary school, constituting approximately a quarter of a full year's work. *The fifteen units of the entrance requirements must include English, 3 units; Mathematics, 2½ units; and one of the following languages: Latin, Greek, French, German, or Spanish, 2 units.* The remainder of the requirement is elective and may be satisfied in general by any accredited secondary school subjects.

COURSES AND DEGREES OFFERED BY THE UNIVERSITY IN ADDITION TO OR IN COMBINATION WITH THE COURSE FOR THE DEGREE OF DOCTOR OF MEDICINE

The states of North Dakota, Iowa, Minnesota, Colorado and Indiana now require applicants for the practice of medicine to have two years of college work in addition to graduation in medicine.

To students who intend to practice in these states or who desire two years of college work before entering upon the study of medicine, the University offers a six-year combination course, by which a student may meet the requirements of these states and at the same time obtain the degree of Bachelor of Science in Medicine and Doctor of Medicine.

Six-year course for the Degree of Bachelor of Science in Medicine and Doctor of Medicine

Regular students enrolling for this course will complete two years of work aggregating at least thirty-six prescribed hours in Columbian College, and the four-year course in the Department of Medicine. On the completion of this six-year course the student will receive at the same time the degree of Bachelor of Science in Medicine and Doctor of Medicine. The curriculum requirement for this combined six-year course is as follows:

a. Columbian College:

SUBJECT	HOURS
Biological Sciences:	
Zoology 1.....	3
Botany 1, 2.....	3
Chemistry 1, 3, 23.....	7
English 1 or 2.....	3
German, French, or Spanish.....	6
History.....	3
Mathematics 3 or 6.....	3
Physics 1 or 3, and 2.....	5
Psychology and Logic.....	3
	—
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b. Department of Medicine:

The four-year course for the degree of Doctor of Medicine.

Seven-year course for the Degree of Bachelor of Arts and Doctor of Medicine

Regular students in this course will complete at least forty-eight hours, as prescribed in Columbian College, and the four-year course in the Department of Medicine. On the completion of the prescribed forty-eight hours of work in Columbian College and the first year of the regular course in Medicine, the student will receive the degree of Bachelor of Arts.

The forty-eight hours of prescribed subjects in Columbian College are as follows:

Columbian College:

SUBJECT	HOURS
Biological Sciences:	
Zoology 1, 2.....	6
Botany 1, 2.....	3
Chemistry 1, 3, 23.....	7
English 1 or 2.....	3
German.....	6
French or Spanish.....	6
History.....	3
Mathematics 3 or 6.....	3
Physics 1 or 3, and 2.....	5
Psychology and Logic.....	3
Economics, History, or English.....	3
	—
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ADMISSION OF STUDENTS FROM OTHER SCHOOLS

Students who have attended one or more terms at any other medical college in good standing, and who have the necessary preliminary educational requirements, may be admitted to advanced standing upon passing the examination required of students for the stage at which they propose

to enter, or upon presenting certificates of examination covering courses equal to those in this College.

Students who have been in attendance upon an Arts course in other accredited colleges or universities may be admitted to advanced standing in any of the premedical courses offered by the University upon examination or upon presentation of properly certified evidence of satisfactory completion of work for which credit is asked.

Students, approved by the Dean, not candidates for the degree of Doctor of Medicine, may be admitted as special students to any of the courses, provided they have the educational attainments which will enable them to pursue properly the studies they elect.

ACADEMIC YEAR

The *Academic Year* begins on the last Wednesday in September and ends on the Wednesday following the Wednesday nearest the first day of June. It is divided into two semesters of four months each.

The term of study for the degree of Doctor of Medicine consists of four years of thirty-two weeks each, exclusive of vacations and holidays. The next session, the ninety-second, begins September 24, 1913, and ends June 10, 1914.

Students must register promptly at the beginning of the session, in order that their time of study shall count as a full year.

SYSTEM OF INSTRUCTION

Instruction is carried on by laboratory work, lectures, recitations, bedside instruction, and hospital and dispensary clinics. Particular stress is laid upon laboratory work and clinical teaching. The clinical material of the University Hospital and Dispensary is utilized to the fullest extent, as the Hospital, the Dispensary, and the Medical College are under the same control. Additional clinics are given in other hospitals in the city to which members of the faculty are attached.

While the greatest stress is laid upon laboratory work and clinical teaching, it is recognized that the facts so obtained must be correlated and shown in their due relation to each other and to the science of medicine. To this end didactic lectures are maintained in certain branches, as they have been found necessary to give a systematic and comprehensive idea of the larger subjects in medicine. These lectures are followed by systematic and thorough quizzes, so that it may be certain that the students properly and thoroughly grasp the ideas presented by the lecturers.

The recitation and quiz work is made so complete that students do not need to employ private quizmasters.

The object sought throughout the courses is to ground thoroughly the students in the knowledge which is necessary to a practitioner of medicine. No particular attempt is made to graduate specialists in any subject. It is believed that the four years allowed are no more than sufficient time for the adequate preparation of the general practitioner.

The policy adopted by the College is to give a comprehensive, well graded and well-proportioned course—one that will adequately prepare the graduate to practice general medicine and meet the requirements of State Boards.

ORDER OF INSTRUCTION

The subjects studied in each year are shown in the following table. Major subjects are in italics:

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
<i>Anatomy.</i>	<i>Anatomy.</i>	<i>Medicine.</i>	<i>Medicine.</i>
<i>Histology.</i>	<i>Organic and</i>	<i>Surgery.</i>	<i>Surgery.</i>
<i>Embryology.</i>	<i>Physiological</i>	<i>Surgical</i>	<i>Orthopædics.</i>
<i>Physiology.</i>	<i>Chemistry.</i>	<i>Pathology.</i>	<i>Genito-Urinary</i>
<i>General</i>	<i>Pathology.</i>	<i>Fractures and</i>	<i>Diseases.</i>
<i>Chemistry.</i>	<i>Bacteriology.</i>	<i>Dislocations.</i>	<i>Operative</i>
	<i>Clinical</i>	<i>Obstetrics.</i>	<i>Surgery.</i>
	<i>Microscopy.</i>	<i>Therapeutics.</i>	<i>Gunshot</i>
	<i>Materia Medica.</i>	<i>Electro-</i>	<i>Wounds.</i>
	<i>Pharmacology.</i>	<i>Therapeutics.</i>	<i>Obstetrics.</i>
	<i>Minor Surgery.</i>	<i>Gynecology.</i>	<i>Gynecology.</i>
	<i>Physical</i>	<i>Medical</i>	<i>Laryngology</i>
	<i>Diagnosis.</i>	<i>Jurisprudence.</i>	<i>and Otology.</i>
	<i>Pathological</i>	<i>Clinical</i>	<i>Ophthalmology.</i>
	<i>Physiology.</i>	<i>Chemistry.</i>	<i>Dermatology.</i>
	<i>Hygiene.</i>	<i>Dietetics.</i>	<i>Psychiatry.</i>
		<i>Physical</i>	<i>Pediatrics.</i>
		<i>Diagnosis.</i>	<i>Neurology.</i>
		<i>Tropical</i>	<i>Clinics.</i>
		<i>Medicine.</i>	
		<i>Clinics.</i>	

The *clinics* above listed comprise the medical, surgical, and other clinics given in the third and fourth years, and are as hereafter noted under the announcements of the different clinical subjects.

OUTLINE OF CURRICULUM

Hours of Required Work in Each Subject

(On the basis of 32 actual weeks in each year)

First Year

	LEC. REC. DEM.	LABORA- TORY	CLINICS	TOTAL
Anatomy.....	99	297		396
Chemistry, Inorganic.....	96	208		304
Histology.....	40	110		150
Embryology.....	15	45		60
Physiology.....	60	182		242
Total of first year.....				1,152

Second Year

	LEC. REC. DEM.	LABORA- TORY	CLINICS	TOTAL
Anatomy.....	48	144		192
Organic and Physiological Chemistry.....	99	160		259
Pharmacology.....		64		64
Bacteriology.....	50	150		200
Pathology.....	43	129		172
Clinical Microscopy.....		60		60
Physiology, Pathological.....		16		16
Hygiene.....	32			32
Materia Medica.....	128			128
Minor Surgery.....	32		32	64
Physical Diagnosis.....	32		32	64
Total of second year.....				1,241

Third Year

Medicine.....	160		208	368
Surgery.....	128		257	385
Obstetrics.....	75		16	91
Physical Diagnosis.....	8		24	32
Gynecology.....	32		32	64
Pediatrics.....			26	26
Therapeutics.....	64			64
Dietetics.....	24			24
Electro-Therapeutics and Radi- ography.....	16		16	32
Surgical Pathology.....		16		16
Tropical Medicine.....	16			16
Medical Jurisprudence.....	16			16
Clinical Chemistry.....	12		36	48
*Total for third year.....				1,182

Fourth Year

Medicine.....	160		106	332
Surgery.....	104			
Orthopedics.....	24			
Genito-Urinary Surgery.....	24		278	470
Laryngology.....	24			
Ophthalmology.....	16			
Dermatology.....	14		16	30
Pediatrics.....	46		48	94
Psychiatry and Clinical Neurol- ogy.....	20		30	50
Obstetrics.....	32		48	80
Gynecology.....	32		32	64
*Total for fourth year.....				1,120

* The number of hours represents the amount of time each student devotes to the course. In addition to the hours scheduled in the third and fourth years, each student is required to do satisfactorily considerable practical work; he is assigned to cases in the University and Carfield Hospitals, is required to assist at operations, to attend cases of labor, administer anaesthetics, attend autopsies, and to take the history of cases. Fully 120 hours annually are required to do this unscheduled work.

ANATOMY

MATTHEW KOLLIG, M.D.....	Professor
OSCAR BENWOOD HUNTER, M.D.....	Associate Professor
ALBERT PERKINS TIBBETS, M.D.....	Instructor
CARL LAWRENCE DAVIS, M.D.....	Instructor

The instruction in the various anatomical sciences—gross human anatomy, neurology, embryology and histology—is carried on by the Division of Anatomy of which the Professor of Anatomy is the head.

This insures complete correlation of the various anatomical branches and adequate instruction in each.

During the first year the course in Gross Anatomy is given mainly by practical laboratory work.

Osteology and Syndesmology are taught by recitations and demonstrations at the beginning of the course, preparatory to the more advanced studies in anatomy. Complete disarticulated skeletons are loaned to the students, so that they may familiarize themselves with the osteological features of the various parts during their dissection. Each student is required to dissect satisfactorily the lateral half of a cadaver. The dissecting room work is supplemented by demonstration, recitation and lectures, illustrated by lantern slides, models, diagrams and special dissections.

In the second year a course in topographical anatomy is given, in which recitations and laboratory demonstrations, frozen sections and special dissections are used to familiarize the student thoroughly with the subject. The systematic study of the gross and minute anatomy of the central nervous system and organs of special sense is pursued by means of lectures, recitations, and laboratory work.

Throughout the course every opportunity is taken to emphasize the application of anatomy to the practice of medicine in all its departments.

First Year

	HOURS		
	Lect., Rec., Dem.	Lab.	Total
Gross Anatomy.....	99	297	396

Second Year

Gross and Topographical Anatomy.....	48	144	192
Totals.....	147	441	588

In *histology and embryology* instruction is given in the care and use of the microscope and in the preparation of tissues for microscopical examination, and a systematic study is made of the minute structure of the tissues and organs of the body, the laboratory work being supplemented by lectures and recitations.

First Year

	HOURS		Total
	Lect., Rec.,	Lab.	
Histology.....	Dem. 40	110	150
Embryology.....	15	45	60
Totals.....	55	155	210

PHYSIOLOGY

SHEPHERD IVORY FRANZ, Ph.D.....	Professor
HENRY RANDALL ELLIOTT, M.D.....	Associate
ELIJAH WHITE TITUS, Phar.D., M.D.....	Instructor

The course in physiology consists of lectures, recitations, demonstrations, laboratory exercises and conferences during the first year. It begins in the second half of the first semester, so that the student is, almost at the beginning of his course in medicine, introduced to the functional viewpoint in his work. In the first semester general physiology is taken up both by lectures and laboratory exercises. In the second semester more intensive work is done, and the physiology of the bodily systems is considered. The functions of the nervous system and special senses, of the blood, of the heart and circulatory system, of glands, of the respiratory mechanisms, and of reproduction are considered by means of lectures and recitations, and, as far as possible, experimentally. In the laboratory each student performs the main experiments illustrating the facts regarding bodily function, and demonstration experiments are given of those functions which are too complex for the student to perform by himself. In this laboratory work each student is required to keep records of his experiments, and each experiment is supervised and the record criticized and checked by one of the instructors before the student leaves the laboratory for the day. The class is divided into sections for oral recitations, which are supplemented by written recitations.

In the second year a series of laboratory exercises on the physiological action of drugs is given (see the announcement under Department of Pharmacology and Therapeutics), and in conjunction with that laboratory work lectures are given and recitations are held in which the functional disturbances in disease are considered. In this course special attention is given to the abnormalities of action of the heart and circulatory system, to the mechanical disturbances in respiration, and to the disturbances of the nervous system and the special senses. Abnormalities of metabolism, matters which are almost exclusively chemical, are not taken up in this course. By this course it is intended to bring the course in normal physiology into closer relations with the succeeding courses in Pathology, Therapeutics and General Medicine.

First Year

	HOURS		Total
	Lect., Rec., Dem.	Lab.	
Physiology.....	60	182	242

Second Year

Pathological Physiology.....	16	...	16
Totals.....	76	182	258

CHEMISTRY

CHARLES EDWARD MUNROE, Ph.D., LL.D.....Professor
 FRANK ADELBERT HORNADAY, S.B., M.D.....Associate Professor

General Chemistry.—A series of illustrated lectures accompanied by recitations, laboratory work, and exercises on theoretical, inorganic, organic, and technical chemistry, with emphasis upon their relation to medicine.

Organic Chemistry.—A series of lectures, laboratory work, and recitations on the acyclic and cyclic hydrocarbons and their derivatives, with special reference to physiology and medicine.

Physiological Chemistry.—A series of lectures, laboratory work and recitations on the proximate principles of the human body.

Clinical Chemistry.—A thorough course is given in which material from the University Hospital and Dispensary is utilized to show the practical application of this subject in medicine.

First Year

	HOURS		Total
	Lect., Rec., Dem.	Lab.	
General Chemistry.....	96	208	304

Second Year

Organic Chemistry and Physiological Chemistry.....	99	160	259
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Third Year

Clinical Chemistry.....	12	36	48
Total.....	207	404	611

MATERIA MEDICA AND THERAPEUTICS

BUCKNER MCGILL RANDOLPH, M.D.	Professor
NOBLE PRICE BARNES, M.D.	Associate Professor
HENRY RANDALL ELLIOTT, M.D.	Associate
WALTER HIBBARD MERRILL, M.D.	Instructor

Second Year.—(1) Lectures upon Materia Medica, including a demonstration of drugs and their preparations. (2) Recitations upon the preparations, their doses, and the various antidotes for poisons. (3) Practical exercises in prescription writing. (4) Demonstrations of drugs. (5) The laboratory course in connection with the study of Pharmacology consists of practical instruction and experiments in pharmacodynamics. The student performs experiments showing the effects of certain drugs on digestion and the physiological actions are investigated of such drugs as Morphine, Atropine, Aconite, Strychnine, Digitalis, Veratrine, Physostigmine, Cocaine, Extr. Suprarenal glands, etc., and the effects of acids and alkalies in varying strength on the skin, mucous membrane and other tissues.

Third Year.—(1) Systematic lectures and recitations on the physiological action of drugs and other remedial agents, as demonstrated by laboratory experiment and clinical application; their therapeutic use in disease; their modes of administration; and a review of their toxicology. (2) A review of the principles of prescription writing, with practical exercises by students in writing prescriptions in the metric and English systems. (3) Lectures in applied therapeutics, devoted to the study of the application of remedial measures to morbid physiological and pathological states, as they occur clinically. (4) Lectures and section demonstrations in electro-therapeutics and Roentgen therapy.

Second Year

	HOURS		
	Lect., Rec., Dem.	Lab.	Total
Pharmacology.....	...	64	64
Materia Medica and Toxicology.....	128	...	128

Third Year

Therapeutics.....	64	...	64
Electro-therapeutics.....	16	16	32
Totals.....	208	80	208

DIETETICS

JOHN BENJAMIN NICHOLS, M.D.	Associate
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A thorough course of lectures on the principles of feeding in health and disease.

Third Year

	HOURS		
	Lect., Rec., Dem.	Lab.	Total
Dietetics	24	...	24

PATHOLOGY AND BACTERIOLOGY

FREDERICK FULLER RUSSELL, M.D.	Professor
JOHN BRADFORD BRIGGS, M.D.	Associate
RALPH MICHELL LE COMTE, M.D.	Instructor

Bacteriology.—The first part of the session is devoted to a laboratory course of instruction in the fundamental principles and methods of pure bacteriology. A thorough drilling is given in the preparation of culture media, in sterilization and disinfection, staining, and in the several methods of differentiating bacteria.

Pathology.—The course in Pathology comprises general and special pathology. Post-mortem examinations will be utilized when possible. Coincidentally with the above is included the study of the principal pathogenic bacteria: the principles of immunity and serum therapy.

The course in instruction in special pathology will include the study of those processes requiring surgical relief; the healing of wounds and other injuries; of special diseases, neoplasms, and problems of experimental pathology.

The course in *Clinical Microscopy* comprises the study and examination of various tissues, fluids, and material from the standpoint of diagnosis.

Second Year

	HOURS		
	Lect., Rec., Dem.	Lab.	Total
Bacteriology.....	50	150	200
Pathology.....	43	129	172
Clinical Microscopy.....	...	60	60
Totals.....	93	339	432

MORBID ANATOMY

WALTER WATKINS WILKINSON, M.D.	Associate
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The instruction in this course is mainly practical and consists of post-mortem examinations and demonstrations pertaining to the subjects of morbid anatomy and special pathology. Instruction in the technique of post-mortem examinations for scientific purposes and in medico-legal cases is a feature of the course. Each student is required personally to assist in and render a detailed report upon at least six autopsies.

Third and Fourth Year

Morbid Anatomy..... Each Student 20

HOURS

MEDICINE

STERLING RUFFIN, M.D.....	Professor
GEORGE NICHOLS ACKER, A.M., M.D.....	Clinical Professor
THOMAS ASH CLAYTOR, M.D.....	Clinical Professor
JAMES DUDLEY MORGAN, A.B., M.D....	Associate and Clinical Professor
MONTGOMERY EARL HIGGINS, M.D., Surg. U.S.N.....	Professor
JOHN BENJAMIN NICHOLS, M.D.....	Associate
HARRY HAMPTON DONNALLY, A.M., M.D.....	Associate
WALTER ASHBY FRANKLAND, M.D.....	Clinical Associate
JOSEPH LAWN THOMPSON, M.D.....	Instructor
CHARLES WILBUR HYDE, M.D.....	Instructor
COURSEN BAXTER CONKLIN, M.D.....	Instructor
WILLIAM JOHNSTON MALLORY, M.D.....	Instructor

Instruction in Medicine is so given as to conform to the most modern requirements. The work begins in the second year with a complete course in history-taking and normal physical diagnosis, and is continued through the third and fourth years. During the latter two years the course consists of lectures, recitations, a study of case histories, clinical conferences, and practical work in the clinical laboratory and at the bedside. The work is made as practical as possible.

The third-year class is divided into small sections, which are required to attend the daily dispensary service in the University Hospital, where they are drilled especially in history-taking and in the technique of practical physical diagnosis.

The fourth-year class is similarly divided into small sections, and these are required to attend the daily ward clinics in the University Hospital and ward clinics in the Garfield Memorial Hospital, Children's Hospital, and the Tuberculosis Hospital of the District of Columbia.

The system of ward clinics to small groups of students afford a most effective method of studying disease and gives to every student an opportunity of following a large assortment of diseases from their commencement to the termination of illness; in no other way is it possible to get a more practical knowledge of the methods of studying disease or a more intimate knowledge of disease itself.

Every patient in the medical wards of the University Hospital is assigned to one, or at most two, senior students, who are required (under proper supervision) to take the history, to make and record a complete physical examination, to determine after due study the nature of the illness (diagnosis), to outline a plan of treatment, and to make daily notes of the progress of the case.

A weekly amphitheater clinic is given to third-year students in a

body and a similar clinic to the fourth-year class. A series of special neurological clinics is provided for the senior class at the Government Hospital for the Insane, where there is a great wealth of material (see announcement of Psychiatry and Clinical Neurology).

Second Year

	Lect., Rec., Dem.	HOURS Clinics	Total
Physical Diagnosis.....	32	32	64

Third Year

Physical Diagnosis.....	8	24	32
General Medicine.....	160	208	368

Fourth Year

General Medicine.....	160	172	332
Totals.....	360	370	796

TROPICAL MEDICINE

MONTGOMERY EARL HIGGINS, M.D., Surgeon U. S. N..... Professor

The course in tropical diseases is similar to that given in the Army and Navy Medical Schools, and consists of didactic lectures, quizzes, and laboratory instruction, with particular reference to the parasitic, protozoal diseases common in the tropics and in the southern part of the United States.

Third Year

	HOURS
Tropical Medicine, 1 hour.....	16

PSYCHIATRY AND CLINICAL NEUROLOGY

WILLIAM ALANSON WHITE, M.D., Superintendent of the
Government Hospital for the Insane..... Professor
BENJAMIN RUSH LOGIE, M.D..... Instructor
GEORGE HENRY SCHWINN, M.D..... Instructor
FRANCIS MERRIAM BARNES, Jr., M.D..... Instructor

A series of lectures and clinics is given upon the subject of insanity in its various forms.

These clinics are given at the Government Hospital for the Insane, which, with its more than two thousand beds, affords one of the largest clinics in this country.

Students are taught in the same classes with students of the Army and Navy Medical Schools.

Fourth Year

	HOURS
Psychiatry and Neurology, 1 hour, Jan.-May. Dr. WHITE	20
Clinical Psychiatry, 1½ hours, Jan.-May. Drs. SCHWINN and BARNES	30

PEDIATRICS

GEORGE NICHOLS ACKER, A.M., M.D.....	Professor
EDGAR PASQUAL COPELAND, M.D.....	Associate
HARRY HAMPTON DONNALLY, M.D.....	Clinical Associate
FRANK LEECH, M.D.....	Clinical Associate
WILLIAM J. FRENCH, M.D.....	Instructor

Didactic and clinical lectures, bedside and dispensary clinics are given upon diseases of infants and children and the importance of the proper management of these diseases by diet and hygiene.

The children's clinic, at the Children's Hospital, affords ample material for practical teaching in this branch.

Fourth Year

	HOURS		
	Lect., Rec.,		
	Dem.	Clinics.	Total
Pediatrics.....	46	48	94

PHYSICAL DIAGNOSIS

WILLIAM CABELL MOORE, M.D.....	Associate
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A complete course is given in this subject by means of recitations, section work on normal subjects, and with clinical cases which typically represent diseased conditions.

Second Year

	HOURS		
	Lect., Rec.,		
	Dem.	Clinics	Total
Physical Diagnosis.....	32	32	64

Third Year

Physical Diagnosis.....	8	24	32
	40	56	96

SURGERY

WILLIAM CLINE BORDEN, M.D.....	Professor
AURELIUS RIVES SHANDS, M.D.....	Professor
FRANCIS RANDALL HAGNER, M.D.....	Professor

ARTHUR AUGUSTIN SNYDER, M.D.....	Clinical Professor
JOHN RYDER WELLINGTON, M.D.....	Clinical Professor
LUTHER HALSEY REICHELDERFER, M.D.....	Clinical Professor
LOUIS ANATOLE LA GARDE, M.D.....	Professor
CHARLES STANLEY WHITE, M.D.....	Associate
WILLIAM FRANCIS MATTINGLY SOWERS, M.D.....	Associate
EDWARD THOMAS MURDAUGH FRANKLIN M.D.....	Instructor
HARRY HYLAND KERR, M.D.....	Instructor
CHARLES WILBUR HYDE, M.D.....	Instructor
ARTHUR LEROY HUNT, M.D.....	Instructor
CLINE CHIPMAN, M.D.....	Instructor

The principles of surgery are presented in a systematic course of lectures, so that the student may obtain a comprehensive and adequate concept of the science and art of surgery. These lectures are followed by recitations, so that the subject-matter may be thoroughly impressed upon the students. The special divisions of surgery are taught by associates and instructors who have made specialties of these branches. The clinical material in the University Hospital and Dispensary, being under the control of the Faculty, is directly used throughout the course to illustrate the subjects taught and to familiarize the students with actual clinical conditions.

Surgical technique is taught by instruction in the preparation of materials used in antiseptic and aseptic surgery, the preparation of the patient, and the sterilization of instruments. Practical instruction is given in the Hospital and Dispensary in the application of splints, bandages, and dressings used in the various surgical diseases and injuries. Thorough instruction and practical demonstrations are given in the administration of anaesthetics.

Clinical teaching is carried on in the University Hospital and Dispensary, and in other hospitals of the city to which members of the Faculty are attached. Amphitheater clinics are given, in which the general practice of surgical diagnosis and operative technique and therapeutic procedure are shown.

Ward clinics and bedside instruction are made a prominent part of the course. The class is divided into sections, which are regularly assigned to clinical work in the University Hospital and Dispensary, and in other hospitals and dispensaries. Senior students are assigned in rotation to individual cases in the wards of the University Hospital.

Practical work is required of each student in the preparation of dressings and sterilization of instruments. Each student is required to give, under instruction, at least six anaesthesias and to assist in at least six operations.

In the fourth year a thorough course is given in operative surgery.

Second Year

	HOURS		
	Lect., Rec., Dem.	Clinics	Total
Minor Surgery.....	32	32	64

Third Year

General Surgery.....	128	257	385
Surgical Pathology.....	16		16
Radiography.....	16	16	32

Fourth Year

General Surgery.....	104	186	290
Orthopedics.....	24		24
Genito-Urinary.....	24	20	44
Gunshot Wounds.....	8		
Operative Laboratory.....		40	40
Totals.....	344	551	895

SURGICAL PATHOLOGY

WILLIAM FRANCIS MATTINGLY SOWERS, M.D.....Associate

Surgical pathology is taught by thorough instruction in the gross and microscopic appearance of surgical diseases and injuries, and by a systematic course of lectures and quizzes by which the etiology, pathology, symptomatology, and treatment of the surgical affections and their relations to each other are shown.

ORTHOPEDICS

AURELIUS RIVES SHANDS, M.D.....Professor

A course of lectures and recitation on the pathology, etiology, course, termination, and treatment of chronic joint diseases, with clinical instruction in the application of special apparatus and of plaster of Paris to the correction of deformities.

GENITO-URINARY DISEASES

FRANCIS RANDALL HAGNER, M.D.....Professor

A thorough course of instruction in genito-urinary diseases is given by lectures, recitations, section clinics, and bedside teaching.

GUNSHOT WOUNDS

LOUIS ANATOLE LA GARDE, M.D.....Professor

The treatment of gunshot wounds with special reference to civil practice is given in a course of lectures and demonstrations, fully illustrated by lantern slides, X-ray photographs, and animal specimens from the Army Medical School.

OBSTETRICS

ALBERT FREEMAN AFRICANUS KING, A.M., M.D., LL.D.....Professor
 JULIAN MAYO CABELL, M.D.....Clinical Professor
 HURON WILLIS LAWSON, S.B., M.D.....Associate Professor
 ALEXANDER YELVERTON PEYTON GARNETT, M.D.....Instructor
 ELIJAH WHITE TITUS, M.D.....Instructor

The course in Obstetrics comprises a series of lectures on the science and art of midwifery, together with practical work. The chief purpose of the lecturer is to arrange, simplify, and explain the matters studied in the text-books so as to render them more easily intelligible and to indicate their relative importance. The lectures are illustrated by diagrams, models, manikins, natural preparations, and instruments. The class is divided into sections, and each student performs various obstetrical operations upon the manikin and receives practical instruction in external pelvimetry and the methods of abdominal palpation and auscultation during pregnancy. Recitations from text-books are held throughout the term. In the fourth year clinical instruction in obstetrics is given, the class being divided into small sections, each section being given bedside instruction, and the individual students being required to attend a stated number of cases.

The out-patient obstetrical service is large and thoroughly organized for instruction. Cases are usually referred several weeks before the expected date of confinement. Each case is promptly investigated by the instructor in charge and assigned to a student who in company with the instructor visits and examines the patient as soon as practicable and thereafter visits the patient at intervals of one week, and attends the case during labor. Students make post-partum visits daily for four days and every other day thereafter until the case is discharged by the instructor.

Third Year

	Lect., Rec., Dem.	HOURS Clinics.	Total
Obstetrics.....	75	16	91

Fourth Year

Obstetrics.....	32	48	80
Totals.....	107	64	171

GYNECOLOGY

JOHN WESLEY BOVÉE, M.D.....	Professor
ALBERT LIVINGSTON STAVELY, M.D.....	Clinical Professor
GIDEON BROWN MILLER, M.D.....	Associate
WALTER ASHBY FRANKLAND, M.D.....	Associate
J. LEWIS RIGGLES, M.D.....	Associate
VIRGIL B. JACKSON.....	Instructor
DANIEL LERAY BORDEN, M.D.....	Instructor

Gynecology as taught in the third year comprises a course of lectures and text-book recitations. In the fourth year individual students are assigned to cases in the wards of the University Hospital, and the class is taken in sections of one to two students each into the Gynecological Dispensaries for clinical instruction in examinations, diagnosis, and treatment. In larger sections the class attends amphitheater and ward clinics given by the Professor of Gynecology and his assistants.

Third Year

	HOURS		
	Lect., Rec., Dem.	Clinics.	Total
Gynecology.....	32	32	64

Fourth Year

Gynecology.....	32	32	64
Totals.....	64	64	128

LARYNGOLOGY AND OTOTOLOGY

CHARLES WILLIAMSON RICHARDSON, M.D.....	Professor
EDWARD GRANT SEIBERT, M.D.....	Instructor
OSCAR ADDISON MACK McKIMMIE, M.D.....	Instructor
HOBART SOUTHWORTH DYE, M.D.....	Instructor

The course comprises lectures and clinical instruction on diseases of the nasal passages, pharynx, larynx, and the ear. Practical demonstrations are given in the use of the laryngoscope and other instruments required in these special branches.

* The total number of clinic hours cannot be given, as each student is required to attend ten cases, exclusive of the demonstration work and Ward and Dispensary Clinics above enumerated.

Fourth Year

	HOURS
Lectures, 3 hours, Oct.-Nov. Professor RICHARDSON.....	24
Clinics. Professor RICHARDSON, Dr. DYE, Dr. McKIMMIE, and Dr. SEIBERT.....	24

OPHTHALMOLOGY

WILLIAM KENNEDY BUTLER, M.D.....	Professor
DANIEL KERFOOT SHUTE, A.B., M.D.....	Associate Professor
EDWARD GRANT SEIBERT, M.D.....	Instructor

The course of lectures on this subject is to direct attention to the elementary principles of the subject. It is not intended to qualify the student as a specialist, but to give him a knowledge of what every general practitioner ought to know. The course is supplemented by clinical instruction.

Fourth Year

	HOURS
Lectures. Professor BUTLER.....	16
Clinics. Professors BUTLER and SHUTE and Dr. SEIBERT.....	24

DERMATOLOGY

RANDOLPH BRYAN CARMICHAEL, M.D.....	Professor
CHARLES AUGUSTUS SIMPSON, M.D.....	Instructor

The lectures in this course will be principally clinical, supplemented by didactic lectures, illustrated by diagrams, models, and photographic illustrations of disease from life.

Fourth Year

	HOURS
Lectures. Professor CARMICHAEL.....	14
Clinics, Professors CARMICHAEL and Dr. SIMPSON.....	16

HYGIENE

DANIEL WEBSTER PRENTISS, M.D.....	Professor
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The course in Hygiene is given principally by recitation from a prescribed text-book. Consideration is given to domestic and municipal sanitation and to the principles underlying legislative control of public health.

Second Year

	HOURS
Lectures and recitations. Professor PRENTISS.....	32

MEDICAL JURISPRUDENCE

WILLIAM CREIGHTON WOODWARD, LL.M., M.D. Professor

This course is designed to familiarize students with the rights and obligations of physicians, both legal and ethical, and to qualify them to apply the facts of medical science to the solution of problems in law.

Third Year

Lectures, 1 hour, Feb.-May. Professor WOODWARD HOURS
16

CLINICAL FACILITIES

The following hospitals are open to the students of this school for clinical study, and are extensively used for that purpose:

University Hospital and the University Dispensary

H Street, between Thirteenth and Fourteenth Streets N. W. and adjacent to the Medical Building.—The Hospital and Dispensary are part of the educational equipment of the University. They are integral parts of the Department of Medicine, are entirely controlled by the Faculty of Medicine, and are used primarily in instructing the students in clinical work. The Dispensary has a large out-patient service in all departments, to which several thousand visits are made annually.

The staff is composed of members of the Faculty of Medicine.

Garfield Memorial Hospital

Florida Avenue and Tenth Street N. W.—This institution has 118 charity beds. Clinics are given regularly throughout the session by members of the Faculty connected with the visiting staff of the hospital.

Members of the Faculty on the visiting staff: Professors CLAYTON and MORGAN, Clinical Medicine; Professors SNYDER, WELLINGTON, and REICHELDERFER, Clinical Surgery; Professor STAVELY, Clinical Gynecology; Professor CARMICHAEL, Clinical Dermatology; Professors SHUTE and BUTLER, Clinical Ophthalmology; Professor HAGNER, Clinical Genito-Urinary Surgery; Professor YARROW, Consulting Physician; Dr. CABELL, Clinical Obstetrics.

Children's Hospital

W Street, between Twelfth and Thirteenth Streets N. W.—Regular instruction is given in the medical and surgical wards by members of the Faculty on the visiting staff of the hospital. This institution has 100 charity beds. There is also a large out-patient department, to which students are regularly assigned for clinical instruction.

Members of the Faculty on the visiting staff: Professor KING and YARROW, Consulting Physicians; Professor WELLINGTON, Clinical Sur-

gery; Professor ACKER and Drs. COPELAND, DONNALLY, and LEECH, Clinical Medicine.

Emergency Hospital and Central Dispensary

Fifteenth Street and Ohio Avenue N.W.—This hospital has 36 charity beds, and has a very large out-patient service. The large emergency service gives exceptional facilities in Clinical surgery, particularly in fractures and dislocations which are taught in regular clinics by the instructor in this subject.

Members of the faculty on the visiting staff: Professor HAGNER, Clinical Genito-Urinary Diseases; Drs. WHITE and JACKSON, Surgery; Professor MORGAN and Dr. ELLIOTT, Clinical Medicine; Professor CARMICHAEL, Clinical Dermatology; Dr. MILLER, Clinical Gynecology; Professor SHANDS, Orthopedics; Professor SHUTE, Ophthalmology; Dr. FRENCH, Pediatrics.

Columbia Hospital for Women

Twenty-fifth Street and Pennsylvania Avenue N. W.—This hospital has 68 charity beds for diseases peculiar to women, and 50 charity maternity beds. Both the obstetrical and the gynecological services are particularly good and are fully utilized for students.

Members of the Faculty on the visiting staff: Professor BOVÉE and Dr. MILLER, Clinical Gynecology; Drs. KELLY, CABELL, and RIGGLES, Clinical Obstetrics; Professor SHUTE, Ophthalmology; Professor RUFFIN, Visiting Physician.

The Government Hospital for the Insane

This hospital is maintained by the United States Government. It has 2,500 beds. Clinical instruction in mental diseases is given by the superintendent of the hospital, Professor W. A. WHITE, and Drs. MILLER and BARNES. Other members of the Faculty on service at this hospital are Professor FRANZ; Professor SHUTE, Consulting Ophthalmologist; Professors RUFFIN, and MORGAN, Consulting Physicians.

Episcopal Eye, Ear, Throat, and Nose Hospital

Fifteenth Street, between L and M Streets N. W.—Excellent opportunities for clinical instruction in ophthalmology, otology, laryngology, and rhinology are offered by this hospital.

Members of the Faculty on its staff: Professor RICHARDSON, Clinical Otology and Laryngology; Drs. McKIMMIE and DYE, Clinical Otology and Laryngology; Professor ACKER, Consulting Physician.

Lutheran Dispensary

Fourteenth and N Streets N. W.—This dispensary affords good opportunities for clinical study of diseases of the eye, ear, throat, and nose.

Members of the Faculty on its staff: Professor BUTLER, Surgeon-in-Charge; Dr. SEIBERT, Ophthalmology; Professor ACKER, Consulting Physician.

Casualty Hospital

Massachusetts Avenue N. E.—Opportunities in emergency and dispensary work are offered by this institution.

Members of the Faculty on its staff: Professor ACKER, Consulting Physician; Dr. BARNES, Clinical Medicine.

Tuberculosis Hospital

Fourteenth and Upshur Streets N. W.—Members of the Faculty on staff: Professor CLAYTOR and Dr. RANDOLPH, Clinical Medicine; Dr. REICHELDERFER, Clinical Surgery; Professor RICHARDSON, Ophthalmology.

CLASSIFICATION AND ADVANCEMENT OF STUDENTS

Students are divided into four classes, according to their proficiency and the time spent, viz: first year, second year, third year, and fourth year.

Proficiency in all subjects is marked on the scale of 100.

Examinations are held at the end of the course in each subject.

In determining the proficiency of a student his laboratory and clinical work, his quiz record, attendance, and result of examination are all considered.

To be *advanced* a student must obtain a general average of 75 or more in all subjects of the year, and must not fail in more than one major or two minor subjects.

Students who obtain a general average of 75 or more, but who fail in not more than one major or two minors, may be advanced *conditioned* and may be permitted at the next examination period a re-examination in the subjects in which they fail, but all conditions must be removed before a student can be again advanced.

Students who fail of advancement or graduation will not be allowed re-examination, except by special permission of the Faculty, and must repeat all subjects in which they obtained less than 85 during the year, and pass an examination on all majors of preceding years in which they obtained less than 85 before they can be advanced or graduated. Students who fail to appear at the regular examinations will not be examined until the next regular examination, except by special permission of the Faculty. In special examinations a fee of \$5 will be charged for each subject. Students who fail to pass satisfactorily their practical laboratory examinations will be required to repeat the laboratory courses. Students will not be admitted to examination unless they have paid all fees due at the time.

A student who has failed of graduation after repeating his final year will not be permitted to maintain his connection with the school.

REQUIREMENTS FOR GRADUATION

Every candidate for the degree of Doctor of Medicine must be at least twenty-one years of age and of reputable character. He must have complied with the admission and other requirements herein set forth. He must have attended at least 80 per cent of all required instruction during four sessions of 32 weeks each in four separate years; must have satisfactorily completed all his courses and passed all his examinations. He must be present at the time specified for the final examinations, and also at Commencement. The degree is not conferred in the absence of a candidate except by special consent of the President's Council. Graduates of other accredited colleges who desire degrees must spend one year in residence at this school.

Candidates who in their work and examinations attain general averages of 90 or more will be presented to the Faculty for consideration with reference to being designated as "having graduated with distinction." If in the opinion of the Faculty such candidates have shown themselves to be possessed of more than ordinary merit, they will have inscribed upon their diplomas beneath their degree the words "with distinction."

SCHOLARSHIPS

Four scholarships are provided for students.

Corcoran Scholarships.—In recognition of the liberality of the late W. W. Corcoran in endowing the University for the Department of Medicine, the Faculty of Medicine has established in the department four free scholarships.

Two of these scholarships are open for competitive examination to the graduates of the several high schools of the District of Columbia and are awarded to the two students whose averages are highest.

One scholarship is open for competitive examination to graduates of any reputable high school or college who shall give satisfactory written evidence of pecuniary inability and certificates of good moral character and industry, and is awarded to the graduate whose average is highest.

The remaining scholarship is open for competitive examination to students who, though not graduates of any high school or college, give satisfactory evidence that they are fitted by previous education for the study of medicine, and at the same time give satisfactory written evidence of pecuniary inability and certificates of good moral character and industry, and is awarded to the student whose average is highest.

In establishing these averages professional aptitude and general qualifications are considered along with scholastic ability.

Applications for scholarships should be filed with the Dean not later than May 15. Students holding scholarships pay the matriculation, library, laboratory, and graduation fees, and make the deposit to cover breakage. Holders of scholarships must maintain a satisfactory scholastic average.

PRIZES

A prize from the Ordonaux Prize Endowment will be awarded under conditions determined by the University authorities.

Professor ACKER gives a prize for the best examination in Pediatrics.

Professor BUTLER gives a prize for the best examination in Ophthalmology.

Professor HAGNER gives a prize for the best examination in Genito-Urinary Diseases.

HOSPITAL APPOINTMENTS

Internes are annually appointed in the University Hospital. These appointments are made upon competitive examinations under conditions determined by the governing authorities of the Hospital. Appointments to similar positions are open to the graduates and undergraduates of this school in the following other hospitals of the city: Garfield Memorial Hospital, Emergency Hospital, Columbia Hospital for Women, Casualty Hospital, Providence Hospital, Washington Asylum Hospital, Children's Hospital, Episcopal Eye, Ear, Throat, and Nose Hospital.

FEES AND CONTINGENT EXPENSES

1. Matriculation (payable but once).....	\$5
2. Annual library fee.....	3
3. Tuition fee per annum, including all charges for materials	150
4. Graduation fee.....	10
5. Fee for a certificate under the seal of the University.....	2

A deposit of \$10 to cover breakage in laboratory courses and damage to the building or apparatus is required. Any unforfeited balance is returned to the student.

Persons are allowed to register as auditors for the tuition fees without being required to take active part in the exercises or to pass examinations but no credit will be allowed for such attendance.

No registration will be accepted for less than a full semester, and no change in the courses undertaken at the time of registration will be made unless approved by the Dean.

Students are urged to purchase their own microscopes, but those who do not care to do so may rent them from the University at the following rates:

Microscope for Histological Laboratory use.....	\$5
Microscope for Bacteriological, Pathological, and Clinical	
Microscopy Laboratory use.....	6

Matriculation, library, other fees and deposits are due in full in advance. Tuition may be paid in eight monthly installments in advance. Students who are unable to pay their fees monthly in advance

will be required to file an acceptable personal or corporate bond of \$200 as security for future payment. In every instance all indebtedness must be discharged on or before May 1 of the current school year. All fees are payable at the office of the Dean.

WITHDRAWALS

Withdrawals will be granted only on recommendation of the Dean and the approval of the President.

A certificate of work actually done will be given to any student granted a withdrawal or a transfer to another school during the session. A written request for withdrawal or transfer must be filed with the Dean and no permission to withdraw or transfer, and no certificate of work done will be given a student unless all fees and dues chargeable against him up to the end of the month in which he withdraws have been paid.

BOARD AND ROOMS

A register of boarding houses is kept by the Treasurer. Accommodations cost from \$25 to \$40 a month.

For catalogues, application blanks, and further information, address

THE DEAN

Department of Medicine,
The George Washington University
1325 H Street N. W., Washington, D. C.

DEPARTMENT OF DENTISTRY

FACULTY

CHARLES HERBERT STOCKTON, LL.D. . . . PRESIDENT OF THE UNIVERSITY
JOHN ROLAND WALTON, D.D.S.,

Dean and Professor of Prosthetic Dentistry and Orthodontia

DANIEL KERFOOT SHUTE, M.D. Professor of Neuro-Anatomy

HENRY CLAY THOMPSON, D.D.S. Professor of Operative Dentistry

CHARLES EDWARD MUNROE, Ph.D., LL.D. Professor of Chemistry

SHEPHERD IVORY FRANZ, Ph.D. Professor of Physiology

CHARLES STANLEY WHITE, M.D. Professor of Oral Surgery

FREDERICK FULLER RUSSELL, M.D.,

Professor of Pathology and Bacteriology

NOBLE PRICE BARNES, M.D.,

Associate Professor of Materia Medica and Therapeutics

MATHEW KOLLIQ, M.D. Professor of Anatomy

JOHN ROBERT DE FARGES, D.D.S. Associate Professor of Dental

Metallurgy, Jurisprudence, Economics, and Ethics

CHARLES TURK BASSETT, D.D.S.,

Associate Professor in Charge of the Dental Infirmary

ALLEN SCOTT WOLFE, D.D.S.,

Associate Professor of Crown and Bridge Work

CADMUS LINDEN ODOR, D.D.S.,

Associate Professor of Operative Technics

WILLIAM FRANCIS LAWRENCE, D.D.S.,

Associate Professor of Prosthetic Technics

ARTHUR BARTON CRANE, D.D.S., . . . Associate Professor of Oral Surgery

D. DEWITT BEEKMAN, D.D.S.,

Associate Professor of Materia Medica and Therapeutics

FRANK ADELBERT HORNADAY, S.B., M.D.,

Associate Professor of Chemistry

HARRY RANDALL ELLIOTT, M.D. Associate in Physiology

JOHN WINSLOW TAYLOR, D.D.S., . . . Instructor in Prosthetic Technics

CHARLES GARDNER SHOEMAKER, D.D.S.,

Instructor in Operative Technics

HENRY CISSEL YOUNG, D.D.S., . . . Instructor in Prosthetic Technics

HERBERT CORNWELL HOPKINS, D.D.S. Lecturer on Orthodontia

ALBERT PERKINS TIBBETS, M.D. Instructor in Anatomy

GEORGE MILLER SHARP, D.D.S. Lecturer on Oral Prophylaxis

RALPH MICHELL LECOMTE, M.D.,

Instructor in Pathology and Bacteriology

JAMES WALTER BERNHARD, D.D.S.,

Instructor in Crown and Bridge Work

MARION EDWYN HARRISON, D.D.S. Demonstrator in Dental Infirmary

GENERAL STATEMENT

The first course of lectures in the Dental School began November, 1887, under the title of "The Columbian University Dental Department." The course then extended over two years of five months each. Two years later the course was extended to seven months; but, this additional time being found inadequate to keep pace with the ever-increasing demand for higher dental education, the course was gradually increased, until now it extends over three years of eight months each.

The next academic year begins on Wednesday, September 24, 1913, and ends on Wednesday, June 10, 1914. Students should register promptly at the office of the Dean at the beginning of the session, and no student can be received and credited with a full term after ten days from the first lecture. Final examinations are held at the conclusion of the instruction in each subject. For further information communicate with the Dean of the Dental Department or the Secretary of the University.

ADMISSION

Candidates for matriculation must show that they are fitted by previous education to study dentistry. For this purpose they must present a satisfactory certificate of their attainments from an approved school or college, or they must pass an examination.

Candidates are admitted without examination:

1. Upon presenting a diploma or certificate of a reputable college conferring on them the degree of A.B. or S.B., or an equivalent degree in the arts and sciences.
2. Upon presenting a diploma or certificate of graduation from a high school, academy, or preparatory school approved by the University as maintaining an adequate standard.
3. Upon presenting a certificate of admission to the Freshman class of an approved college.
4. Upon presenting a certificate of admission to another dental school approved by the University as maintaining an adequate standard.

Candidates unable to comply with the foregoing requirements are admitted upon passing an examination based upon the general requirement of an accredited four year high school.

Latin and Physics are required. An applicant deficient in either subject or both may be admitted to the first-year class conditioned, but conditions must be made up during the first year.

The scope of the different subjects is indicated in standard high school text-books.

A candidate may offer certificates of an approved school for work done in any preparatory subjects, and will be credited with the units repre-

sented by such work. A candidate failing to pass in two of three subjects of his examination may be admitted to the first year upon the condition that he make up the deficiency before entering the second-year class. The examinations are conducted by examiners appointed by the Superintendent of Schools of the District of Columbia.

The examinations for admission will be held in June and September, at the Dental Department.

AUDITORS

Persons are allowed to register as auditors for the tuition fees without being required to take active part in the exercises or to pass examinations, but no credit will be allowed for such attendance only.

COURSE OF INSTRUCTION

The course of instruction extends through three years of eight months each. The subjects taught during the course are divided as follows:

FIRST YEAR	SECOND YEAR	THIRD YEAR
Anatomy.	Organic Chemistry.	Operative Dentistry.
Physiology.	Operative Dentistry.	Orthodontia.
General Chemistry.	Prosthetic Dentistry.	Prosthetic Dentistry.
Histology.	Pathology.	Comparative Dental
Operative Technics.	Materia Medica	Anatomy.
Prosthetic Technics.	Operative Technics.	Oral Surgery.
Special Anatomy.	Prosthetic Technics.	Orthodontia Technics.
	Infirmory Practice.	Metallurgy.
	Bacteriology.	Prosthetic Technics.
	Dental Histology.	Infirmory Practice.
	Orthodontia Technics.	Dental Therapeutics.
	Infirmory Practice.	Dental Pathology.
	Clinics.	Dental Bacteriology.
		Oral Prophylaxis.
		Dental Jurisprudence,
		Economics and
		Ethics.
		Infirmory Practice.
		Clinics.

These studies are further described in the following pages.

Hours of recitation, daily from 4.50 p.m. to 10.30 p.m.; 6.30 to 7.30 p.m., dinner hour.

PROSTHETIC DENTISTRY AND ORTHODONTIA

JOHN ROLAND WALTON, D.D.S. Professor
HERBERT CORNWELL HOPKINS, D.D.S. Lecturer

1. *Prosthetic Dentistry*.—All branches in this department will be under the supervision of the professor. He will deliver the lectures and manage in person and through his assistants the quiz work and course of instruction. This system will prevent confusion in method and technical procedures.

2. *Orthodontia*.—Junior year Orthodontia is a technical course with lectures and demonstrations. The Senior year is a review of the Junior studies with advanced lectures upon the irregularities of the teeth, local and constitutional. Each student is required to make a number of appliance upon models and practically correct cases of irregularity.

OPERATIVE DENTISTRY, DENTAL ANATOMY AND PATHOLOGY

HENRY CLAY THOMPSON, D.D.S. Professor

This course embraces lectures on the special anatomy and physiology of the teeth. The origin, growth, and eruption of the teeth receive minute attention, and are illustrated as their importance demands.

The methods of treating, filling, and extracting teeth receive attention in the lecture-room, and are demonstrated clinically by proficient operators. Extended consideration is given to dental pathology and therapeutics. This chair has personal supervision of the department of Operative Technics and the infirmary.

CHEMISTRY

CHARLES EDWARD MUNROE, Ph.D., LL.D. Professor

FRANK ADELBERT HORNADAY, S.B., M.D. Associate Professor

The instruction in this subject embraces:

A short discussion of the principles of Physics in their relation to Chemistry, the principle of chemical philosophy, and the laws of chemical combination.

A study of the elements, metallic and non-metallic; the preparation, properties, and reaction of their different compounds and their application in dentistry; Organic Chemistry, with special attention to those organic compounds that are of practical use; laboratory instruction in the determination of acids and bases, analyses of alloys, etc.

PHYSIOLOGY

SHEPHERD IVORY FRANZ, Ph.D. Professor

HENRY RANDALL ELLIOTT, M.D. Associate

ELIJAH WHITE TITUS, Ph.D., M.D. Instructor

This subject is taught in lectures, recitations, and laboratory exercises. In the lectures and recitations special emphasis is placed upon those parts of physiology that have a known bearing upon dental medicine and surgery, especially digestion, secretion, and the nervous system.

Three laboratory periods a week during a semester give the student first-hand knowledge of the principal facts about the general functions of tissues, and the special functions of the nervous system, the special senses, the heart, circulation, digestion, and respiration.

ANATOMY

MATTHEW KOLLIG, M.D.....	Professor
ALBERT PERKINS TIBBETS, M.D.....	Instructor
OSCAR BENWOOD HUNTER, M.D.....	Instructor
CARL LAWRENCE DAVIS, M.D.....	Instructor

The instruction in Anatomy is given in a graded course of lectures, recitations from prescribed text-books, and especially by practical work in the dissection of the cadaver. The lectures are illustrated by the use of dry and wet dissections of the cadaver, by models, diagrams, charts, and stereopticon views.

Practical work in osteology and in dissection of the head are of fundamental importance. For the study of these subjects the class is divided into sections in order to make the instruction as practical as possible. The bones of the skeleton are placed in each student's hands, and he is instructed and quizzed upon all their important features.

MATERIA MEDICA AND THERAPEUTICS

NOBLE PRICE BARNES, M.D.....	Associate Professor
D. DEWITT BEEKMAN, D.D.S.....	Associate Professor

Instruction in these subjects embraces:

The study of crude drugs and their preparations and the art of prescribing; the physiological action of drugs in the human system; the practical application of drugs and other therapeutical agencies to the prevention and cure of diseases and the relief of suffering, together with their antidotal relation to poisons.

The subject is taught by means of lectures, recitations, and blackboard illustrations, and is made practical to as great a degree as is compatible with a sufficiently thorough understanding of its principles.

In connection with this chair is a pharmaceutical laboratory, well equipped with modern appliances, in which are taught the making of typical preparations of the Pharmacopoeia, prescription writing, and the compounding of prescriptions.

Special attention is given to those drugs that are of most value in the practice of dentistry.

ORAL SURGERY

CHARLES STANLEY WHITE, M.D.....	Professor
ARTHUR BARTON CRANE, D.D.S.....	Associate Professor

Instruction in this subject will consist of didactic lectures, recitations case histories, together with clinics at regular intervals.

The lectures will deal with surgical bacteriology and pathology, surgical technique, anaesthesia, local and general wounds, hemorrhage, shock, new growths, constitutional diseases, plastic operations upon the palate and face, dislocations and fracture of the maxillae, and the extraction of teeth. Charts, diagrams, photographs and stereopticon slides will supplement the lectures.

In the clinics at the Emergency Hospital, illustrative cases will be shown. The student will be expected to attend such operations as pertain to this subject.

HISTOLOGY

MATTHEW KOLLIG, M.D.....	Professor
ELIJAH WHITE TITUS, M.D.....	Instructor

The course in Histology consists in a systematic presentation of the subject of the minute anatomy of the various parts of the body, especial attention being devoted to the histology of the teeth and neighboring structures. The subject is presented partly by systematic lectures, and more especially by the practical study by the individual students of actual specimens under the microscope. The methods of preparation of microscopical specimens are presented and practiced in the laboratory. The projection microscope, affording valuable aid in illustrating and presenting the subject, is constantly used.

PATHOLOGY AND BACTERIOLOGY

FREDERICK FULLER RUSSELL, M.D.....	Professor
JOHN BRADFORD BRIGGS, M.D.....	Associate
RALPH MICHELL LeCOMTE, M.D.....	Instructor

The course begins with a consideration of the principles involved in the process of sterilization by dry and moist heat, the relative value and mode of application of each, and an explanation of the construction of the apparatus employed for the purpose. The use and construction of the thermostat is taken up at the same time and the student taught how he can dispense with these costly appliances in emergencies.

The composition and modes of preparation of the various nutritive media are next considered, working formulas given, and the student required to prepare them at least once in the laboratory. This is followed by a discussion of bacteria as a class, their position in the biological world, their classification, distribution, and the general and special characters that belong to them.

After this preparatory training the various methods in use for the isolation and study of bacteria are taught by practical demonstration and practiced by the students, after which the most important pyrogenic

organisms are studied in detail, giving special attention to those found in the nasal and oral cavities.

The aim of the course is chiefly to afford the students an opportunity to become practically familiar with bacteriological working methods, and to enable them to isolate and identify the bacteria present in suppurative processes, as well as to comprehend intelligently the references to micro-organisms in the current professional literature of the day.

PROSTHETIC TECHNICS

WILLIAM FRANCIS LAWRENCE, D.D.S.	Associate Professor
JOHN WINSLOW TAYLOR, D.D.S.	Instructor
HENRY CISSEL YOUNG, D.D.S.	Instructor

The technic laboratories are thoroughly equipped for their particular work. The course in prosthetic technics extends through the Freshman, Junior, and Senior years.

The first year is a technical and didactic course. The students are taught the proper equipment of a dental laboratory; the preparation of the mouth for dentures; methods of taking impressions of the mouth and manipulation of the various impression materials; the preparation and mounting of models; selection and artistic arrangement of teeth; the construction of plastic dentures and crowns with general details.

In the Junior class the course is a review of the Freshman year with extended technical and didactic work, embracing a practical course in taking impressions, making models, dies, and casting; swaging, rimming, attaching teeth by rubber, and in general construction of metal dentures, crown and bridge work.

The Senior year is a practical course, embracing the swaging of plates, teeth attached by soldering, clasps, porcelain work, advanced bridge work, removable bridges, and the detailed construction of all work in prosthetic dentistry.

The work of the Department is under the immediate supervision of the associate professor.

OPERATIVE TECHNICS

CADMUS LINDEN ODOR, D.D.S.	Associate Professor
CHARLES GARDNER SHOEMAKER, D.D.S.	Instructor

This subject is taught by lectures, illustrated by enlarged models and drawings, together with demonstrations of instruments and materials. The students perform exercises in manipulative procedure under the direction of the instructors.

The subjects embraced in the course consist, first, of the study of dental nomenclature, that the student may acquire an understanding of the technical terms used in the course of his dental studies. This is followed by descriptive dental anatomy, and the forms and surface

markings of each tooth studied, the natural teeth, as well as enlarged models and drawings being used for the purpose. Each student is required to make various sections of the teeth for the thorough study of the pulp chambers and root canals and their relations to the external surface of the teeth.

That tooth-forms may be more perfectly impressed upon the mind of the students, each student is required to carve a tooth of the several classes, as incisor, cuspid, bicuspid, and molar, in bone or artificial ivory, representing the actual form and size of the natural organ. Cavities are classified and illustrated by drawings and models, followed by their preparation and filling in technic forms by the student. Treating and filling root canals is given full attention, the students performing operations of this kind upon natural teeth mounted for the purpose.

All work, in its relation to operative dentistry, is given the necessary consideration to fit the student for meeting, as far as possible, the actual requirements of the infirmary.

COMPARATIVE DENTAL ANATOMY

The senior students will study in this course the food habits and the teeth of animals. The forms of teeth and their uses as weapons of offense and defense will be studied.

CROWN AND BRIDGE WORK, GOLD INLAY, AND PORCELAIN

ALLEN SCOTT WOLFE, D.D.S.....Associate Professor
JAMES WALTER BERNHARD, D.D.S.....Instructor

Instruction in this course is systematically given by lectures and clinics. The course in technique extends through the Freshman, Junior, and Senior years.

Students are taught the principles and practice of inlay work, porcelain crowns, high and low fusing bodies, the use of the electric and gas furnaces.

METALLURGY

JOHN ROBERT DEFARGES, D.D.S.....Associate Professor

The subject of Metallurgy taught in the chemical laboratory will be reviewed and an extended course will be given in metals, alloys, and amalgams which are used in dentistry.

PROFESSIONAL ETHICS, DENTAL JURISPRUDENCE, AND ECONOMICS

These lectures on ethics consist of a brief statement of the moral obligations of professional men to each other and to their patients the duty of upholding the honor and dignity of the profession, and the differences between the profession and business or manufacturing pursuits.

The lectures on jurisprudence will follow the text-book by Dr. Reh-fuss, which fully elucidates the legal relation of the dentist to his patients, the importance of dental records, the limitations of dental practice, the liabilities incurred by those who administer anaesthetics, the penalties, etc.

Economics.—This course will instruct the student in the proper methods to insure a practice and to retain patients; will discuss business relations between patients and dentist, fees, book and card systems, and the general economy in conducting an office.

ORAL PROPHYLAXIS

GEORGE MILLER SHARP, D.D.S.....Lecturer

This subject will be taught didactically, and clinically practical work by the students in the treatment of the oral cavity will be required.

THE DENTAL INFIRMARY

CHARLES TURK BASSETT, D.D.S..... Associate Professor in Charge
JOHN WINSLOW TAYLOR, D.D.S..... Demonstrator
HENRY CISELL YOUNG, D.D.S..... Demonstrator
MARION EDWYN HARRISON, D.D.S..... Demonstrator

The Infirmary is open every week-day the entire year. An abundance of clinical material is readily available. In fact, as many patients present themselves as can possibly be attended to by the students. It is under the immediate supervision of the demonstrator in charge, who is present from 1 until 5 o'clock.

CLINICAL STAFF

CAESARE LOUIS CONSTANTINI, D.D.S..... Clinician in Charge
ARTHUR DURDAN WEAKLEY, D.D.S.... Clinical Instructor in Dentistry
THOMAS LOCKE RUST, D.D.S..... Clinical Instructor in Dentistry
GEORGE BERTRAM ROPER MACDONALD, D.D.S.,
Clinical Instructor in Dentistry
WILLIAM CARL KILLINGER, D.D.S... Clinical Instructor in Orthodontia
MARK FLORUS FINLEY, D.D.S..... Clinical Instructor in Orthodontia
ALEXANDER DUNNINGTON COBEY, D.D.S.,
Clinical Instructor in Non-Cohesive Gold
GEORGE MILLER SHARP, D.D.S.,
Clinical Instructor in Special Crown Work
ZENAX WILBUR ALDERMAN, D.D.S.,
Clinical Instructor in Electro-Therapeutics
ROBERT EDWIN LAYTON, D.D.S..... Clinical Instructor in Dentistry

TEXT-BOOKS AND WORKS OF REFERENCE

(The works first named and in *italics* are preferred.)

Anatomy.—Cunningham's *Text-book of Anatomy*; Cunningham's *Manual of Practical Anatomy*; Black's *Dental Anatomy*.

Physiology.—Text-books: Haliburton's *Physiology*; Howell's *Physiology*; Tigerstedt's *Physiology*.

Pathology and Bacteriology.—Delafield and Prudden's *Pathology*; Jordan's *Bacteriology*.

Chemistry.—Simon's *Chemistry*; Barha's *College Chemistry*; Holland's *Medical Chemistry*.

Materia Medica.—H. C. Wood's *Therapeutics*; Hare's *Practical Therapeutics*; A. A. Stevens' *Modern Materia Medica and Therapeutics*; Culbreath's *Materia Medica and Pharmacy*; National Dispensatory Reference Text-books, Osborne, Wilcox, Sollmann, Shoemaker, U. S. Pharmacopoeia and National Formulary; Prinz's *Dental Materia Medica and Therapeutics*; Modern *Dental Materia Medica*; Buckley's *Therapeutics and Pharmacology*; Dorland's *Medical Dictionary*.

Prosthetic Dentistry.—*The American Text-Book of Prosthetic Dentistry*; Essig's *Dental Metallurgy*.

Operative Dentistry.—Harris' *Principles of Practice*; Tome's *Dental Anatomy and Surgery*; Taft's *Operative Dentistry*; Litch's *American System of Dentistry*; Kirk's *Operative Dentistry*; Johnson's *Operative Dentistry*.

Oral Surgery.—Scudder's *Tumors of the Jaws*; Ivy's *Applied Anatomy and Oral Surgery*.

Histology.—Nichols, Bohm and Davidoff's *Histology*; Bromell's *Anatomy and Histology of the Mouth*.

Orthodontia.—Angle's *Treatment of Malocclusion of the Teeth and Fractures of the Maxillæ*; Talbot's *Irregularities of the Teeth*; Jackson's *Orthodontia*.

Dental Jurisprudence.—Rehfuss's *Dental Jurisprudence*.

Dental Pathology and Therapeutics.—Burchard's *Dental Pathology and Therapeutics*.

Comparative Dental Anatomy.—Thompson's *Comparative Dental Anatomy*.

GRADUATION

Candidates for graduation must have attended three full courses of lectures, each of eight months' duration, and three courses of clinical instruction in this Department, during the regular winter term and in separate years. Students are examined at the end of the regular course upon all subjects taught them during that course. Should the student fail in his examination in course, he may be reexamined in the fall. All fees must be paid and Infirmary requirements complied with before the student may present himself for examination.

Students must enter before, or within ten days after, the opening lecture of the regular course. They may register at any time during the Infirmary course, and thus begin Infirmary practice at once upon payment of twenty-five dollars, which amount will be deducted from their tuition fees for the succeeding regular term.

The candidate for graduation must be examined upon all subjects taught in this Department, and before the examination he must perform operations upon the natural organs in the Infirmary, and present the demonstrators in charge with a well-constructed specimen of dental mechanism made by himself in the dental laboratory of the University.

In addition to the above requirements, the moral character and habits of the candidate, his industry, and diligent attendance will be taken into consideration. Notable negligence, immorality, or habitual absence from the lectures will preclude the candidate from attaining his degree, even though he may have acquired sufficient technical knowledge to pass a creditable examination. This reservation on the part of the Faculty of the right to make good moral character a prerequisite for graduation must not be overlooked.

The student also, during and between the sessions, must comply with the State laws regulating the practice of Dentistry, and act in accordance with the recognized code of ethics of the dental profession.

COURSES IN ARTS AND SCIENCES

Students taking a full course for a degree may be admitted without additional fee, except laboratory fees, to courses for which they are qualified, in the Department of Arts and Sciences, the aggregate of such courses not to exceed six hours a week.

LOCATION

The Dental Building is No. 1325 H Street N. W. It is within half a square of all lines of street cars going to every part of the city.

The Dean may be seen personally at 724 9th Street N. W., on any week day, and also at the Dental Building, 1325 H Street N. W., on Tuesday and Thursday of each week at 4.30 p.m. during the session.

FEES AND CONTINGENT EXPENSES

1. Matriculation fee (payable once).....	\$5
2. Annual library fee.....	2
3. Tuition fee per annum, including all charges for materials.....	125
4. Late registration fee in the case of students registering for the first term after October 20, or for the second term after February 20, excepting for courses which do not begin with the terms.....	2
5. Fee for graduation.....	10
6. Fee for a certificate under the seal of the University.....	2

7. A deposit of \$10 to cover breakage in laboratory courses and damage to the building or apparatus is required. Any forfeited balance is returned to the student.

No registration will be accepted for less than a full semester, and no change in the courses undertaken at the time of registration will be made unless approved by the Dean. *Withdrawals during the semester will be granted only on recommendation of the Dean and the approval of the President.*

Students are furnished microscopes at the following rates:

Microscope for histological laboratory use.....	\$5
Microscope for bacteriological, pathological, and clinical microscopy laboratory use.....	6

The cost of instalments for the first year amounts to about \$20, and the cost of text-books to about \$30.

PAYMENT OF FEES

Matriculation, library, other special fees and laboratory deposits are due in full in advance. Tuition and laboratory material fees may be paid in eight monthly instalments in advance. Students who are unable to pay their fees monthly in advance will be required to file an acceptable personal or corporate bond for \$200 as security for future payment. In every instance all indebtedness must be discharged on or before May 1 of the current academic year. Fees are payable at the office of the Treasurer, 2024 G Street, or at the office of the Medical Department, 1325 H Street.

BOARD AND ROOMS

A register of boarding-houses is kept by the Treasurer. Accommodations cost from \$25 to \$40 a month.

For catalogues, application blanks and further information, address
 J. ROLAND WALTON, D.D.S., *Dean*,
 724 9th Street N. W.

PART III

ASSOCIATED COLLEGES

NATIONAL COLLEGE OF PHARMACY

COLLEGE OF VETERINARY MEDICINE

Institutions in the District of Columbia organized as corporations under the Charter of the University, having separate financial foundations but educationally forming a part of the system of the University.

NATIONAL COLLEGE OF PHARMACY

TRUSTEES OF THE NATIONAL COLLEGE OF PHARMACY

THE PRESIDENT OF THE UNIVERSITY, *ex-officio*

1913

WYMOND H. BRADBURY.
SAMUEL WAGGAMAN.

JAMES K. EPPLEY.
FRANK P. WELLER.

1914

CHARLES B. CAMPBELL.
LEWIS FLEMER.

HERBERT C. EASTERDAY.
WILLARD S. RICHARDSON.

1915

FRANK C. HENRY.
HENRY E. KALUSOWSKI.

SAMUEL L. HILTON.
WILLIAM T. KERFOOT

Officers of the Board

Chairman, HENRY E. KALUSOWSKI.

Vice Chairman, LEWIS FLEMER.

Secretary, WYMOND H. BRADBURY.

Treasurer, H. C. EASTERDAY.

FACULTY OF THE NATIONAL COLLEGE OF PHARMACY

CHARLES HERBERT STOCKTON, LL.D., . . . PRESIDENT OF THE UNIVERSITY

HENRY E. KALUSOWSKI, M.D., Phar.D., Dean, and Professor of Pharmacy

SAMUEL WAGGAMAN, M.D., Phar.D.,

Professor of Materia Medica, Botany, and Toxicology

GEORGE A. MENGE, Ph.D., Professor of Chemistry and Physics

HOWARD M. BRADBURY, Phar.D., Professor of Analytical Chemistry

BURTON J. HOWARD, S.B., Professor of Microscopy

HENRY B. FLOYD, Phar.D., Professor of Mercantile Pharmacy

ALEXANDER MUNCASTER, Phar.D., LL.M.,

Professor of Pharmaceutical Jurisprudence

DOUGLAS TSCHIFFLEY, Phar.D., . Assistant to the Professor of Pharmacy

LORING W. BEESON, Phar.D.,

Assistant to the Professor of General Chemistry

HOMER K. BUTLER, Phar.D.,

Assistant to the Professor of Analytical Chemistry

CALENDAR

1913

September 18, *Thursday*—Admission Examination begins at 1 p.m. in the Lecture Room of the College.

September 24, *Wednesday*—Forty-first Session begins.

November 27, *Thursday*—Thanksgiving Day, a holiday.

Recess from December 24, 1913, to January 3, 1914, both inclusive

1914

February 23, *Monday*—a holiday.

May 6, *Wednesday*—Annual Examinations for promotion and graduation begin.

June 10, *Wednesday*—Commencement.

GENERAL STATEMENT

The National College of Pharmacy, which is the outgrowth of the Columbian Pharmaceutical Association, organized in April, 1871, was chartered under the provisions of an act of Congress in 1872, and opened its doors to students November 11 of that year. In February, 1906, it became a member of the educational system of The George Washington University, under the charter of the University granted by Congress March 3, 1905, providing for the organization of colleges. The President of the University is *ex-officio* president of the National College of Pharmacy, and the College is represented in the President's Council by its Dean.

The work of the College embraces courses in chemistry, botany, materia medica and toxicology, pharmacy and pharmaceutical laboratory work, analytical chemistry, microscopy, mercantile pharmacy, and pharmaceutical jurisprudence. Three years are required for the completion of the prescribed course.

The College building is centrally located on I street northwest between Eighth and Ninth streets. It is easily reached by the principal street car lines of the city.

Preliminary Education and Examination

The College requires of its Matriculants a knowledge of the branches usually taught in the public schools of Washington, D. C., to the extent of *two years in the high schools or its equivalent*, and they must be at least seventeen years of age. Evidence of this may be shown by certificates from reputable teachers or by the results of an examination to be held at the College, at one o'clock p.m., *THURSDAY*, September 18, 1913.

Beginning with the session of 1914-15, candidates for admission to the College will be required to have three years' high school instruction or its equivalent. Beginning with the session of 1916-17, candidates will be required to have four years' high school instruction or its equivalent.

SPECIAL COURSES

Students may select one or more of the branches taught and attend the lectures and laboratory work during the time set apart for such study.

Students taking single tickets are not entitled to take the examinations for the degree conferred by the College.

THE DEGREE

The degree conferred is *Doctor of Pharmacy*.

QUALIFICATIONS FOR THE DEGREE

1. The student shall have attended three courses of instruction in Chemistry, Pharmacy, Analytical Chemistry, Materia Medica, Botany and Toxicology; and two in Microscopy, the last of which must have been in this College; and one course each in Mercantile Pharmacy and Pharmaceutical Jurisprudence.

2. He must have passed a satisfactory examination in each of the branches taught.

3. He must be recommended by the Board of Examiners.

MATERIA MEDICA, BOTANY AND TOXICOLOGY

Freshman Course

The first lectures are introductory to the study of elementary botany, after which follow vegetable histology and plant physiology. The subject-matter of these lectures is thoroughly explained by means of charts, diagrams, and specimens.

Junior Course

This course is devoted to the consideration of the various theories concerning the vegetable world and the practical results obtained by experienced laborers in this science. The lectures are illustrated by means of the lantern and microscope. A large part of the course is devoted to a consideration of the official organic drugs.

Senior Course

The lectures are mainly upon the active principles, adulterants, official preparations, therapeutic uses, and doses; after which the organic and inorganic poisons are taken up under three heads: (1) Corrosive; (2) Irritant; and (3) Neurotic Poisons. Under these three divisions are explained briefly their action, detection, and antidote.

PHARMACY

Freshman Course

This course is given to the study of the various pharmaceutical processes and operations. Following in the order named are lectures on

metrology, heat, thermometry, evaporation, distillation, fusion, sublimation, calcination, granulation, comminution, solution, filtration, clarification, decoloration, precipitation, crystallization, and extraction, during which the various methods used to bring about the desired results will be illustrated.

Junior Course

During a part of this course the time is given to the application of the processes considered during the Freshman year to pharmacopœial preparations, and such modifications as adapt them to special uses.

The latter part of this course is taken up with the study of official preparations obtained from the elementary bodies beginning with bromine, chlorine, iodine, phosphorus, and sulphur, following by carbon, boron, silicon, the inorganic acids, potassium, sodium, lithium, ammonium, magnesium, calcium, barium, zinc, aluminum, cerium, cadmium, manganese, iron, chromium, lead, silver, copper, mercury; antimony, arsenic, bismuth, and gold.

Senior Course

The time during this course is mainly given to the study of compounds chiefly derived from organic matter, and products obtained therefrom, amylaceous and saccharine substances; glucosides and alkaloids, volatile oils and animal products used in pharmacy, vegetable oils, soaps, and products from resins.

ANALYTICAL CHEMISTRY

The instruction in this Department is intended to present the chemical tests of the United States Pharmacopœia, with methods for the identification of substances and for the detection of impurities; to instruct in the methods of assaying and the use of volumetric solutions, and to enable students to analyze any ordinary mixture of inorganic material.

For the purpose of carrying out the work of this Department a large, well-equipped laboratory is provided with all the usual water and gas facilities, and has recently been wired and installed with electric apparatus whereby electro-chemical methods of analysis can be taught and the application of the electric current to the preparation of chemicals by the methods of electro-chemistry can be illustrated before the students. These and other facilities afford students exceptional opportunities to become familiar with the fundamental principles of the science of chemistry.

The first year is devoted to experimental work so arranged as to supplement the lectures in General Chemistry.

The second year covers a systematic course in qualitative analysis in connection with the test of the United States Pharmacopœia.

The third year is devoted to volumetric analysis by means of the standard solutions of the Pharmacopœia.

GENERAL CHEMISTRY AND PHYSICS

Inasmuch as the subjects of Analytical Chemistry and Pharmacy are fully provided for in other courses, these lectures are devoted more closely to the fundamental principles and classification which must underlie a thorough and systematic knowledge of Chemistry. Owing to the intimate connection existing between Chemistry and several branches of Physics, a number of lectures illustrating the more important laws and principles of some of these branches precedes the regular course in Chemistry, and others on these subjects with which a prior acquaintance is less important follow after the student has acquired some knowledge of chemical changes. During the first half of the second year Physics and the non-metallic elements receive consideration, followed during the remainder of the second and a portion of the third year by the metals. The greater portion of the third year is devoted to the exposition of the more important facts, principles, and theories of Organic Chemistry.

MICROSCOPY

The course of Microscopy gives instruction in the use of the compound microscope as an aid in the study and identification of drugs, and requires full attendance from Junior and Senior students.

The work includes both lectures and laboratory courses, and consists in the examination of plant tissue as illustrated in various vegetable substances most familiar to pharmacists. Special attention is given to the structural characteristics by which one drug can be distinguished from another as well as to the detection and identification of the most common adulterants used.

MERCANTILE PHARMACY AND PHARMACEUTICAL JURISPRUDENCE

These courses are required in the Senior class only.

FEES

Matriculation.....	\$5
Tickets for the full year's course of instruction, Freshman	80
Tickets for the full year's course of instruction, Junior	85
Tickets for the full year's course of instruction, Senior.....	90
Single tickets for Chemistry, Materia Medica, Botany, and Toxicology, each.....	20
Single tickets for Analytical Chemistry.....	25
Single tickets for Practical Pharmacy	25
Single tickets for Microscopy.....	20
Single tickets for Mercantile Pharmacy.....	10
Single tickets for Pharmaceutical Jurisprudence.....	10
Fee for Diploma.....	10

For further information consult the Dean, HENRY E. KALUBOWSKI,
808 I Street N. W.

COLLEGE OF VETERINARY MEDICINE

BOARD OF TRUSTEES

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FACULTY

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DAVID EASTBURN BUCKINGHAM, V.M.D.,

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JOHN POLLARD TURNER, V.M.D.,

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Professor of Zoology and Parasitology

MATTHEW KOLLIG, A.B., M.D...Professor of Histology and Embryology

HULBERT YOUNG, V.M.D.,

Assistant Professor of Veterinary Obstetrics and Physiology

JOHN M. BUCK, D.V.M..... Assistant Professor of Veterinary Anatomy

OTIS DOW SWETT, S.M., LL.M..... Assistant Professor of Chemistry

WILLIAM W. BRIDE, A.B., LL.B...Lecturer on Veterinary Jurisprudence

HERBERT S. WILLIAMS, V.M.D.,

Clinical Instructor in Military Veterinary Science

MATTHEW KOLLIG, M.D..... Instructor in Histology and Embryology

RALPH MICHELL LE COMTE, M.D.,

Instructor in Bacteriology and Pathology

TUNIS HICKS, D.V.M. Instructor in Veterinary Anatomy

WILLIAM H. O'HARA, D.V.M. Instructor in Veterinary Medicine

CHAUNCEY M. GRUBB, D.V.M.,

Instructor in Dairy Inspection and Milk Hygiene

HARRY A. LOCHBOEHLER, D.V.M.,

Instructor in Veterinary Materia Medica and Therapeutics

JAMES W. NORRIS, D.V.M..... Instructor in Dentistry and Horseshoeing

G. M. POTTER, D.V.M.,

Instructor in Special Pathology, Infectious Diseases and Meat Inspection.

JOSEPH N. HORNBAKER, D.V.M.....	Instructor in Physiology
EDWARD H. RILEY, B.Agr., D.V.M.,	
	Instructor in Breeds and Breeding and Judging
LEWIS L. HELLER, B.Sc., Agr.....	Instructor in Feeds and Feeding
HARRY H. FETTER, Ph.G.....	Instructor in Pharmacy and Botany
EDWIN H. INGERSOLL, S.B.....	Instructor in Physiological Chemistry

REQUIREMENTS FOR ADMISSION

Students presenting a diploma from any recognized college, normal or high school are eligible to admission without examination.

Students not having the above qualifications will be required to pass an examination equivalent to a 2d grade Civil Service Examination, supplemented by History and Geography of the United States and its possessions. (U. S., B. A. I. Circular No. 150).

ADMISSION OF STUDENTS FROM OTHER SCHOOLS

Students of other recognized and approved veterinary schools may be admitted to this school as follows:

Those qualified to enter the second year of such a school may be admitted to the second-year class of this school, those qualified to enter the third year of their own school to the third year of this school; provided, however, that the subjects pursued by the applicants in their previous year or years are reasonably equivalent to those required in the same year or years in this school, and that the requirements for advancement from class to class are the equivalent of those in this school. Applicants may be required to submit to examination in all the subjects pursued by the previous class of this school.

EVIDENCE OF ATTENDANCE

At the end of the college year each student is entitled to a written statement giving the length of time spent in each study during the session and the grade received therein. This statement, or definite evidence of credit, shall be exacted from a student before he is given advanced standing in any veterinary college. (U. S. B. A. I. Cir. 150).

ADVANCED STANDING

Advanced standing will be given for degrees in Medicine, Dentistry, or Veterinary Medicine.

Students holding degrees in Arts, Science, Philosophy, or Agriculture who in the course of study for their degrees have pursued studies in chemistry, physiology, anatomy, histology, bacteriology, or pathology, equivalent to the courses in these subjects in this college, may upon satisfactory evidence of their proficiency be credited with such studies; provided, however, that such students shall devote two years' study in veterinary medicine, the last year of which is passed in this College.

SPECIAL STUDENTS

Students, approved by the Dean, not candidates for the degree of Doctor of Veterinary Medicine, may be admitted without examination to pursue any course they may elect. Such courses cannot, however, be subsequently considered as time spent in the course for the degree of Doctor of Veterinary Medicine. Nor can such students enter upon the regular veterinary course without complying with all the regular requirements for admission.

CLASSIFICATION OF STUDENTS

Students are divided into four classes, according to their proficiency and the time spent, viz., first, second, third and fourth year. Students cannot advance to a higher class with more than one major and one minor condition. Students failing in any subject or subjects may be permitted at the next examination period a re-examination in the subjects in which they fail. The Faculty may dismiss any student from the College, if in its judgment such student be deemed an unsuitable person, intellectually or otherwise, for the profession of veterinary medicine.

ORDER OF INSTRUCTION

The subjects studied in each year are shown in the following table:

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Anatomy	Anatomy	Theory and	Theory and
Histology	Physiological	Practice	Practice
Embryology	Chemistry	Bacteriology	Small Animal
Chemistry and	Pharmacy	Pathology and	Practice
Physics	Physiology	Laboratory	Surgery and
Laboratory	Hygiene	Diagnosis	Restraint
Chemistry	Breeds and	Surgery and	Therapeutics
Materia Medica	Breeding and	Restraint	Obstetrics
and Toxicology	Judging	Therapeutics	Veterinary
Botany	Dairy Inspection	Dentistry	Jurisprudence
Zoology	and Milk	Parasitology	Control of
	Hygiene	Soundness and	Infective
	Feeds and Feed-	Lameness	Diseases
	ing	Shoeing and	Meat Inspec-
	Clinics	Balancing	tion and P.
		Clinics	M. Exami-
			nation
			Clinics

For lecture, laboratory and dissecting hours a schedule card is furnished.

Clinical work in the veterinary and canine hospitals connected with the College and at abattoirs and stock and dairy farms is required of second, third and fourth year students.

ANATOMY

JOHN M. BUCK, D.V.M.....Assistant Professor
TUNIS HICKS, D.V.M.....Instructor

The instruction in Anatomy is given in a series of lectures, demonstrations, recitations, and laboratory work, the latter being the most important.

The lectures are intended to present the general anatomical features of the horse and other domestic animals, and to point out the anatomical relations of the organs and parts of the body most subject to surgical operations.

The horse is used as the type subject in dissection, and every student is required to dissect all the parts of the horse, and such other of the domesticated animals, including the ox, sheep, swine, dog and cat, as may prove most expedient.

The laboratory is well supplied with all of the parts of the skeleton of the horse, and portions of the skeleton of various other domestic animals, for the work in osteology. Ample material is always available for the dissection of joints, muscles, viscera, and the vascular and nervous systems. The laboratory is also provided with a complete model of the horse, showing the relation of all the organs and parts of the body, for demonstrations in general and surgical anatomy. The course extends throughout the first and second years.

Text-book.—Sisson's Veterinary Anatomy.

HISTOLOGY AND EMBRYOLOGY

MATTHEW KOLLIG, A.B., M.D.....Professor

These subjects are taught by a series of carefully correlated lectures, recitations, quizzes and demonstrations, and will include such instruction in microscopy as a working knowledge of the use of the simple and compound microscope and accessories, supplemented by the fundamental laws of optics; the method of preparing tissues for microscopic examination, and the technique of mounting.

Comparative histology will deal with the minute structure of the tissues and organs of various animals, including man. In addition to the microscopical demonstrations, lantern demonstrations will also be given.

Embryology under this head will present the salient features of the anatomy and physiology of the fecundated ovule up to the time of birth.

Text-book.—Bohm, Davidoff and Huber's Histology.

PHYSIOLOGY

HULBERT YOUNG, V.M.D..... Assistant Professor
JOSEPH N. HORNBAKER, D.V.M..... Instructor

The course in Physiology consists of lectures, demonstrations and laboratory exercises. The lectures cover all the important facts and theories regarding bodily functions of the animal, and are illustrated by diagrams, models and prepared specimens.

In the laboratory each student performs a number of experiments on blood, on the circulation, on digestion, on the general functions of nerves and muscles, and on the special senses of animals.

Special emphasis is laid on the relation of normal physiological functions to the disturbances of function in disease and upon the physiological action of drugs.

It is intended in this way to bring the work of the Physiological Laboratory and other exercises into closer relation with the succeeding course in Pathology, Therapeutics and General Veterinary Medicine.

Text-book.—Howell's Physiology, Smith's Veterinary Physiology.

GENERAL CHEMISTRY

First Year

CHARLES EDWARD MUNROE, Ph.D., LL.D..... Professor
OTIS DOW SWETT, S.M..... Assistant Professor

General Chemistry.—A series of illustrated lectures, accompanied by recitations and exercises on theoretical, inorganic, organic and technical Chemistry. The student is required to take notes on these lectures, which he must submit for examination.

Laboratory Practice.—A laboratory course for the study of the principles of chemistry which is designed to instruct students in the methods of conducting chemical experiments.

Text-book.—Holland's Medical Chemistry and Toxicology.

PHYSIOLOGICAL CHEMISTRY

Second Year

EDWIN HENRY INGERSOLL, S.B..... Instructor

This course will consist of lectures and laboratory instruction, and includes the study of water from a sanitary standpoint; the chemical examination of milk, the tissues and fluids of the body; the isolation of the digestive enzymes, and a study of their action in vitro.

MATERIA MEDICA AND THERAPEUTICS

DAVID EASTBURN BUCKINGHAM, V.M.D..... Professor
HARRY A. LOCHBOEHLER, D.V.M..... Instructor

First Year

(1) Lectures upon and demonstrations of drugs and their preparations and doses used in veterinary practice will be followed by recitations to assist in memorizing. (2) Practical exercises will be given in prescription writing, also a short course in Veterinary Pharmacology.

Third Year

(1) Systematic lectures upon the physiological action of drugs and their effects in disease, their therapeutic uses, and their methods of administration to animals. (2) Prescription writing, in which students are given hypothetical cases for which to prescribe. (3) The therapeutic application of various agencies not drugs.

Text-book.—Winslow's Veterinary Materia Medica and Therapeutics.

PRACTICE OF VETERINARY MEDICINE

JOHN POLLARD TURNER, V.M.D.....Professor
WILLIAM HENRY O'HARA, D.V.M.....Instructor

This subject is taught by a series of lectures, recitations, quizzes and clinics extending over a period of two years.

The student is personally drilled in all the various diseases and doctrines taught in a well regulated veterinary school.

Especial attention is given to practical work whereby the student can become proficient in the diagnosis and treatment of disease.

Visits are required to the three veterinary hospitals in connection with the University, and personal attention is given students in visits to various large stables in and adjacent to the city of Washington, where practical instruction is given the third and fourth year classes in physical diagnosis among horses, cows and hogs.

Equal attention is given diseases of cattle as of horses, whereby the student is properly fitted for either city or country practice.

Diseases of food-producing animals will be thoroughly explained.

Text-books.—Freidberger and Froehner's Pathology and Therapeutics of Domestic Animals; Huttyra and Marek's Special Pathology and Therapeutics of Domestic Animals; Malkmus' Clinical Diagnosis; Glass' translation of Muller's Diseases of the Dog.

VETERINARY SURGERY AND RESTRAINT

JOHN LOCKWOOD, D.V.S.....Professor
CHAUNCEY MERLE GRUBB, D.V.M.....Instructor

The instruction given in this course embraces systematic lectures upon the principles and practice of Veterinary Surgery.

The different surgical operations are illustrated in clinic and upon the cadaver, and the uses of all the important surgical instruments and

appliances are demonstrated in the same manner. The use of anesthetics, the practice of dental surgery, and castration on all domestic animals will receive special attention.

Text-books.—Moeller's Operative Veterinary Surgery; Fleming's Operative Veterinary Surgery; Hobday's Canine and Feline Surgery; Williams, Principles and Practice of Veterinary Surgery; Pfeiffer and Williams' Surgical Operations; White's Restraint of Domestic Animals; Merrillat's Surgery.

BACTERIOLOGY AND PATHOLOGY

FREDERICK FULLER RUSSELL, M.D.....Professor
RALPH MICHELL LE COMTE, M.D.....Instructor

Bacteriology.—This subject comprises laboratory instruction in the fundamental principles and methods of pure bacteriology. Thorough drilling is given in the preparation of culture media, in disinfection, sterilization, staining and the general methods of bacterial differentiation. Following this course, which is given daily during October, the further study of bacteria is taken up in connection with and as applied to pathology.

Pathology comprises the laboratory study of the general and special phenomena of inflammation, and a detailed study of the pathological processes found in the various diseases. The relation of bacterial and other microphytic life to disease processes and results is studied coincidentally and constitutes a course in applied bacteriology. In connection with the laboratory work a course of lectures and demonstrations is given upon immunity, serum therapy and protective inoculation.

Surgical Pathology.—A special course in the healing of wounds and injuries and in the pathology of surgical operations is given in the third and fourth years.

Clinical Microscopy.—Comprising the study of the various tissues, fluids, ejecta, and dejecta, with a view to diagnosis of diseased conditions, is given in the first part of the third year.

Text-book.—Delafield and Prudden's Pathology, Hiss and Zinsser's Text-book on Bacteriology.

SPECIAL PATHOLOGY, TREATMENT AND CONTROL OF INFECTIOUS DISEASES

G. M. POTTER, D.V.M.....Instructor

The lectures in this course will be given with reference to the etiology, pathogenesis, symptoms, diagnosis, treatment and prevention of the infectious diseases. Local and national regulations and measures governing the control and eradication of diseases, with particular reference to the work of the United States Government in the eradication of infectious diseases will be clearly explained.

Text-books.—Hutyra and Marck's Special Pathology and Therapeutics of Domestic Animals, Volume I, translated by Mohler, Eichhorn and Fisher; Moore's The Pathology of Infectious Diseases of Animals; James Laws's Veterinary Medicine, Volume IV, third revised edition.

BREEDS AND BREEDING AND JUDGING

EDWARD H. RILEY, B.Agr., D.V.M.....Instructor

The course covers the chief phases of live-stock work, including the judging, breeding and management of horses, cattle, sheep and swine.

It is introduced by discussions upon the origin of animal life, natural selections, the origin of breeds and the domestication of animals, as well as the principles of breeding, heredity, environment, selection, individual conformation and the history and development of breeds.

Students obtain practical experience in the judging of the various breeds and classes of animals, by visits to neighboring farms.

Text-books.—Plumb's Types and Breeds of Farm Animals; Goubaux and Barrier's Exterior of the Horse.

FEEDS AND FEEDING

LEWIS L. HELLER, B.Sc.Agr.....Instructor

This course will cover the principles of animal nutrition, balanced rations, practical feeding and the economical production of beef, milk, mutton and pork.

Text-book.—Henry's Feeds and Feeding.

MILK HYGIENE AND DAIRY INSPECTION

CHAUNCEY M. GRUBB, D.V.M.....Instructor.

The course in Milk hygiene will be given by lectures and demonstrations throughout the second year. The students will be taught the theory of milk secretion, the composition and characteristics of milk, the various methods of testing, together with the chemistry and bacteriology of milk, abnormal forms of milk, and diseases transmissible through milk to bovines and human beings, with a study of the epidemics produced. Sanitary stabling and the sanitary handling of milk will be considered, showing the construction of various types of dairy barns and dairy houses, the manner of milking, care of the milk and the varieties and care of dairy utensils; also the study of sterilization and pasteurization.

Text-books.—Jensen's Milk Hygiene, translated by Pearson. Bulletin No. 56, Marine-Hospital Service, Milk and its relation to the public Health.

MEAT INSPECTION AND POST-MORTEM EXAMINATION

G. M. POTTER, D.V.M.....Instructor

The subject involves the control of food animals destined for slaughter; their ante-mortem and post-mortem inspection with reference to the diseases which affect the wholesomeness of the meat. Further, the preparation of meat-food products, the various methods of preservation of meat and the conditions to which the meat and meat products are subject due to the different infections and contaminations. The application of the Regulations of the Department of Agriculture in connection with the judgment of carcasses, meats and meat-food products.

Practical demonstrations in meat inspection and judgment will be given at the local abattoirs.

Post-mortem examinations and demonstrations of morbid anatomy will be given, as opportunities arise, in the various hospital and ambulatory clinics in and about Washington, D. C. Special consideration will be given to discussion of gross pathological changes, procedure of technic, preparation of pathological specimens for museum purposes and methods of securing and forwarding material for diagnosis. Students will be required to write complete protocols of each case.

Text-book.—Mohler and Eichhorn's translation of Edelman's Meat Hygiene, second revised edition.

ZOOLOGY AND PARASITOLOGY

HARRY W. GRAYBILL, B.Sc., A.M., D.V.M.....Professor

Zoology.—In this course a brief survey of the general principles of zoology is undertaken. The history of zoology, the classification of the animal kingdom, the structure of typical forms in the different Phyla and the distribution of animals on the face of the earth will be considered. The course is designed to familiarize the student with the main facts and theories of zoology.

Parasitology.—This course is designed to give the student a practical knowledge of animal parasites. The nature of parasitism, the classification of parasites and the structure and life histories of those parasites of importance from the standpoint of meat inspection and veterinary practice are considered. By the use of fresh and preserved materials the student is given a first-hand knowledge of the more important parasites. Due consideration is given to the diseases caused by animal parasites, their prophylaxis, treatment and eradication.

VETERINARY OBSTETRICS

HULBERT YOUNG, D.V.M.....Assistant Professor

The course of instruction will consist of lectures on obstetrical anatomy, foetal development, presentations and the diseases incidental to the periods of gestation and parturition.

The lectures will be illustrated by diagrams, models, natural preparations, and other appliances for demonstrating the principles taught.
Text-book.—Fleming, Dalrymple, Williams.

SHOEING AND BALANCING

JAMES WALTER NORRIS, D.V.M.....Instructor

The course is intended to familiarize students with the principles of shoeing, the examination of the feet and proper use of special shoes for relief of defects or disease.

Text-book.—Lungwitz on Horseshoeing, Adams' translation.

DENTISTRY

JAMES WALTER NORRIS, D.V.M.....Instructor

The course in dentistry includes lectures on the development of the teeth of the domesticated animals, the determination of age, irregularities of the teeth, oral surgery and dental clinics.

Text-book.—Merillats' Animal Dentistry and Diseases of the Mouth.

BOTANY

HARRY H. FETTER, Ph.G.....Instructor

The course in botany embraces the general relation of plants, vegetative organs, their functions, reproductive organs and nutrition.

Ecological factors, diversity of plant life, evolution of sex, differentiation of tissues, and plant physiology will be fully considered.

PHARMACY

HARRY H. FETTER, Ph.G.....Instructor

Pharmacy includes the history and nomenclature of the U. S. Pharmacopoeia, metrology, metric system and common system of weights and measures. Principles employed in making various preparations, classification of official preparations, incompatibility.

Supplemented by laboratory work in which students are required to compound formulae of ointments, lotions, draughts and various preparations, official and extemporaneous.

MILITARY PRACTICE

HERBERT S. WILLIAMS, D.V.M.,

Clinical Instructor in Veterinary Military Practice

This course consists of lectures and demonstrations of purely military veterinary subjects, and is given at Fort Myer, Va., the cavalry and artillery post near Washington, D. C.

The subjects of saddling, biting and draft, together with the study of the proper conformation of animals used for military purposes, are included in this set of lectures.

The control of epizootics in military life is also given special consideration.

VETERINARY JURISPRUDENCE

WILLIAM W. BRIDE, A.M., LL.B. Lecturer

A series of lectures upon the Law of Animals, including suggestions relating to the conduct of veterinarians as experts in the trial of cases involving the above law.

SPECIAL LECTURES

In addition to the foregoing courses of lectures, a number of government experts have been engaged to give lectures on subjects of special interest to the veterinarian.

These men are specialists in their lines of scientific research, and this is the only school giving such a course.

EXAMINATIONS AND DEGREE

Examinations are held at the end of the course in each subject. Students failing in examinations will be permitted to be re-examined at the next regular examination period. Students will not be admitted to examination unless they have paid all fees due at the time or present a permit signed by the Dean. In order to avail themselves of the privilege of re-examination, students must file their written applications with the Dean not later than fifteen days before the date set for the examinations.

Proficiency is marked upon a scale of 100. A grade of 70 is required to pass an examination. Students who fail to appear at the regular examination period will be charged a fee of \$3 for a special examination in each subject.

If a satisfactory examination is passed, the student receives the Degree of Doctor of Veterinary Medicine (D.V.M.)

PRIZES

1. Gold medal for student attaining highest average for whole course.
2. Prize for best work in operative surgery for senior student.
3. Prize of surgical instrument for best anatomical specimen prepared by a Sophomore student.
4. Prize of surgical instrument for best anatomical specimen prepared by a Freshman student.

In addition to the foregoing, students attaining a general average of 90 per cent or over for the entire course will be graduated "With Distinction," the same to be inscribed upon their diploma.

THE VETERINARY LIBRARY

This library is located in the Administration Building of the College of Veterinary Medicine, and is open from 8 a.m. to 10 p.m.

It contains, in addition to volumes on veterinary medical subjects, the current veterinary journals.

Provision is made in the annual library fee charged every student to add to it as published, the important new works on veterinary medicine.

OTHER LIBRARIES

Washington contains the Library of the Surgeon-General's Office of the United States Army, the most complete medical library in the world. This library, as all other libraries of the government, is open to the public between the hours of 9 a.m. and 4.30 p.m. There is also the Library of Congress and the many excellent libraries of the various other government offices, in addition to the University Medical Library.

FEES AND CONTINGENT EXPENSES

1. Matriculation fee (payable only on first entry into the University)	\$5
2. Library fee per annum.....	2
3. Tuition fee per annum.....	100
4. Fee for graduation.....	10

A deposit of \$5 per annum is required of every student to cover loss, breakage or damage to the property of the school. The amount of such deposit paid in excess of the breakage will be returned.

No change will be made in the fees fixed at registration except in case of withdrawal, and then only upon notice in due form, and from the end of the current quarter-session, when such withdrawal shall be approved. Applications for the granting of a withdrawal should be made on the prescribed form to be obtained from the Registrar, and will be received only at the end of a quarter-session.

Students are urged to purchase their own microscopes, but those who do not care to do so may rent them from the University at the following rates:

Microscope for Histological Laboratory use.....	\$5
Microscope for Bacteriological, Pathological and Clinical	
Microscopy Laboratory use.....	0

PAYMENT OF FEES

All fees are to be paid to the clerk. Tuition fees are payable quarterly, in advance. Matriculation, library and laboratory fees are payable in full, in advance.

STUDENT EMPLOYMENT

The College of Veterinary Medicine will aid students, especially those coming from a distance, to obtain suitable employment as a means of defraying a part or all of their expenses while in pursuit of their college course. Opportunities for such employment in Washington are exceptionally good. The many Departments of Government, the Library of Congress, Congressmen's secretaryships, law offices, contractors' and architects' offices, journalism, stenography, etc., offer a large number of positions of the most diverse kinds. While the College must not be understood as in any sense engaging to find employment for prospective students, in a great many cases important assistance can be rendered duly qualified applicants, if the fact of their desire to obtain employment is known. Applicants are particularly cautioned against coming to the University, intending to depend upon outside employment for support without being provided with funds sufficient to meet the expenses of at least the first half-year. Communications should be addressed to

THE DEAN,
*College of Veterinary Medicine,
The George Washington University,
2113-2115 Fourteenth St. N.W., Washington, D.C.*

BOARD AND ROOMS

A register of approved boarding-houses is kept by the clerk. Accommodations cost from \$25 to \$40 a month.

For further information apply to David E. Buckingham, Dean, The George Washington University, College of Veterinary Medicine, Nos. 2113-2115 Fourteenth Street N. W., Washington, D. C.

PART IV

STUDENTS IN THE UNIVERSITY
DEGREES CONFERRED, MISCELLANEA

STUDENTS REGISTERED IN THE UNIVERSITY 1912-1913

DEPARTMENT OF ARTS AND SCIENCES

SCHOOL OF GRADUATE STUDIES

AUDITOR

- Holmes, Mrs. Kate Osgood; District of Columbia.....916 17th Street
Topics—Archaeology, History of Art.
 Howell, Phebe A.; District of Columbia.....729 Gresham Place
Topics—Archaeology, History of Art.

IN ATTENDANCE

- Bacon, Charles B.; Minnesota.....Bureau of Chemistry
 S.B., 1909, University of Minnesota. *Topic*—Bacteriology.
 Berg, William Nathan; New York.....Bureau of Animal Industry
 S.B., 1904, Ph.D., 1907, Columbia University. *Topics*—Anatomy, Histology and Pathology.
 Coopersmith, Samuel; Nebraska.....1230 11th Street
 A.B., 1910, University of North Carolina; A.M., 1912, University of Nebraska. *Topic*—Chemistry.
 Gilbert, William Williams; Vermont.....3534 11th Street
 B.S. in Agriculture, 1904; S.M., 1909, University of Vermont.
Topic—Chemistry.
 Hartley, Carl; Nebraska.....Room 306, Bureau of Plant Industry
 A.B., 1907; A.M., 1909, University of Nebraska. *Topic*—Chemistry.
 Hirsch, Morris; New York.....1312 Belmont Street
 S.B., 1911, College of the City of New York. *Topic*—Chemistry.
 Hustvedt, Olaf Mandt; Iowa...Bureau of Ordnance, Navy Department
 Graduate, 1909, United States Naval Academy. *Topics*—Chemistry, Mathematics, Physics.
 Palmore, Julian Ivanhoe; Virginia.....Bureau of Chemistry
 S.B., 1902; S.M., 1904; Virginia Polytechnic Institute. *Topic*—Bacteriology.
 Riley, Cathryn Vedralia; District of Columbia.....1754 S Street
 A.B., 1912, Wellesley College. *Topic*—Chemistry.
 Smith, Nathan Raymond; Vermont.....1739 F Street
 S.B., 1911, University of Vermont. *Topic*—Chemistry.

Starbecker, Moses; New York.....1104 5th Street
S.B., 1910, College of the City of New York. *Topic*—Chem-
istry.

DOCTOR OF CIVIL LAW

Miller, Clarence Alphonso; Missouri,
American Consulate, Tampico, Mexico
LL.B., 1899, Kansas City School of Law; LL.M., 1906, M.Dip.,
1906, George Washington University.

CIVIL ENGINEER

Ball, William Curtis Cooley; Maryland,
58 East 86th Street, New York City
B.S. in C.E., 1912, George Washington University.
Potbury, Robert John; District of Columbia.....1131 Euclid Street
B.S. in C.E., 1912, George Washington University.
Prentiss, Augustin Mitchell; District of Columbia 1727 Church Street
B.S. in C.E., 1911, George Washington University.
Scott, Joseph Addison Preston, Jr.; District of Columbia
402 9th Street N.E.
B.S. in C.E., 1912, George Washington University.
Veihmeyer, Frank; District of Columbia.....1518 S Street
B.S. in C.E., 1912, George Washington University.

ELECTRICAL ENGINEER

McCalip, Curtis Edgar; Maryland,
806 East Preston Street, Baltimore, Md.
B.S. in E.E., 1912, George Washington University.
Safford, Howard Palmer; District of Columbia.....1933 Park Road
B.S. in E.E., 1912, George Washington University.
Wiegand, Henry Frank; District of Columbia
Room 279, U. S. Patent Office
B.S. in E.E., 1911, George Washington University.

MASTER OF SCIENCE

Church, Herbert Ashmum; Virginia. Takoma Park, Washington, D. C.
C.E., 1905, Lehigh University. *Topics*—Major, Engineering;
Minors, Engineering, Geology.
Dodge, Cleon Orestes; New Hampshire.....Bureau of Chemistry
S.B., 1905, New Hampshire College. *Topics*—Major, Chemis-
try; Minors, Bacteriology, Microscopy.
Finkelstein, Reuben; District of Columbia.....1230 11th Street
A.B. and Teacher's Diploma, 1911, George Washington Univer-
sity. *Topics*—Major, Education; Minors, Physics, Economics.
Gardiner, Robert Franklin; Rhode Island.....1223 Irving Street
S.B., 1908, Rhode Island State College. *Topics*—Major, Chem-
istry; Minors, Bacteriology, Geology.

- Green, Fitzhugh; Missouri..... Army and Navy Club
Graduate, 1909, United States Naval Academy. *Topics—*
Major, Chemistry; Minors, Physics, Mathematics.
- Gordon, Willis Owen; Illinois.... 225 Oak Avenue, Takoma Park, D. C.
B.S. in Chemistry, 1911, University of Illinois. *Topics—*Major,
Chemistry; Minors, Chemistry, Bacteriology.
- Ingersoll, Edwin Henry; District of Columbia.... 2118 Third St. N. E.
S.B., 1911, George Washington University. *Topics—*Major,
Chemistry; Minors, Chemistry, Bacteriology.
- Mackall, Colin Mackenzie; Virginia..... 305 D Street
A.B., 1909, B.S. in Chemistry, 1910, University of Virginia.
*Topics—*Major, Chemistry; Minors, Chemistry, Bacteriology.
- McLeran, John David; District of Columbia..... 401 M Street N. E.
A.B., 1896, The Iuka Normal Institute; A.M., 1903, Southern
Normal University. *Topics—*Major, Chemistry; Minors, Eng-
lish, History.
- Mansfield, Wendell Clay; New York..... U. S. National Museum
S.B., 1908, Syracuse University. *Topics—*Major, Paleontology;
Minors, Zoology, Mineralogy.
- Marsh, Allen Johnson; District of Columbia..... 628 E Street N. E.
S.B., 1910, George Washington University. *Topics—*Major,
Chemistry; Minors, Bacteriology, Geology.
- Miller, Harry McClure; Kentucky,
Hygienic Laboratory, 25th and E Streets
*Topics—*Major, Chemistry; Minors, Bacteriology, Zoology.
- Palkin, Samuel; District of Columbia..... 1736 15th Street
Ph.B., 1910, Yale University. *Topics—*Major, Chemistry; Mi-
nors, Bacteriology, Microscopy.
- Peck, Caro Beth; Illinois..... 1005 13th Street
S.B., 1908, Northwestern University. *Topics—*Major, Physics;
Minors, Chemistry, Physics.
- Reavis, Andrew Bryant; District of Columbia..... Patent Office
LL.B., 1911, National University; A.B., 1912, George Washing-
ton University. *Topics—*Major, Physics; Minors, Applied Math-
ematics, Physics.
- Rieger, John B.; Pennsylvania..... Bureau of Chemistry
S.B., 1907, University of Michigan. *Topics—*Major, Chemistry;
Minors, Anatomy, Pathology.
- Rowley, Clifford Alonzo; District of Columbia.... 1344 Kenyon Street
M.P.L., 1909, S.B., 1911, George Washington University; LL.B.,
1909, LL.M., 1912, National University. *Topics—*Major, Phys-
ics; Minors, Applied Mathematics, Physics.
- Smith, Delos Hamilton; Arizona..... Southern Building
B.S. in Architecture, 1906, George Washington University.
*Topics—*Major, Architecture; Minors, Architecture, Archaeology.

- Valaer, Peter, Jr.; North Carolina.....Bureau of Internal Revenue
S.B., 1906, North Carolina College of Agriculture and Mechanic
Arts. *Topics*—Major, Chemistry; Minors, Bacteriology, Micros-
copy.
- Welsh, Luther; Missouri.....1717 S Street
Graduate, 1909, United States Naval Academy. *Topics*—Major,
Chemistry; Minors, Mathematics, Physics.
- Wilkinson, Theodore Stark, Jr.; District of Columbia....2000 R Street
Graduate, 1909, United States Naval Academy. *Topics*—Major,
Chemistry; Minors, Mathematics, Physics.

MASTER OF ARTS

- Ashley, Rebecca Sherman; Minnesota.....1100 M Street
Topics—Major, Archaeology; Minors, Archaeology, English.
- Barnes, Charles Maurice; Virginia,
Office of Foreign Trade Advisers, Department of State
A.B., 1910, George Washington University. *Topics*—Major,
Economics; Minors, Sociology, History.
- Bevard, Katherine Harper; District of Columbia.....1423 R Street
A.B. and Teacher's Diploma, 1911, George Washington Univer-
sity. *Topics*—Major, Education; Minors, Education, English.
- Bradshaw, May Paul; District of Columbia.....901 C Street N. E.
A.B., 1909, George Washington University. *Topics*—Major,
History; Minors, English, Economics.
- Brigham, Gertrude Richardson; Massachusetts, Smithsonian Institution
Topics—Major, English; Minors, History, French.
- Carlson, Henry Edwin; Illinois....National Cathedral School for Boys
A.B., 1908, Lake Forest College. *Topics*—Major, German;
Minors, English, German.
- Carter, Francis Edward; Virginia, Episcopal High School Alexandria, Va.
Topics—Major, History; Minors, History, Political Science.
- Fleming, John Paton; Virginia.....1861 Wyoming Avenue
Topics—Major, History; Minors, History, English.
- Hancock, Walter Edgar; Texas.....Falls Church, Va.
A.B., 1912, George Washington University. *Topics*—Major, His-
tory; Minors, History, English.
- Hood, Joseph Douglas; Illinois.....2009 Kalorama Road
A.B., 1910, University of Illinois. *Topics*—Major, Zoology;
Minors, Zoology, Bacteriology.
- Hookstadt, Carl; Illinois.....219 North Capitol Street
A.B., 1910, University of Wisconsin. *Topics*—Major, Political
Science; Minors, Economics, International Law and Diplomacy.
- Judd, Neil Merton; Utah.....626, Y. M. C. A.
A.B., 1911, University of Utah. *Topics*—Major, Classical Archae-
ology; Minors, American Archaeology, Geology.

- Keats, Harold; District of Columbia.....2449 18th Street
A.B., 1912, George Washington University. *Topics*—Major, History; Minors, History, Political Science.
- Lampson, Lawrence Vincent; Ohio.....1333 Otis Place
A.B., 1906, Oberlin College. *Topics*—Major, Political Science; Minors, English, Education.
- Lenney, John Joseph; Virginia.....1832 Ingleside Terrace
Topics—Major, History; Minors, History, Political Science.
- McAvoy, Catharine Agatha; District of Columbia, 1860 Columbia Road
A.B., 1908, George Washington University. *Topics*—Major, French; Minors, French, German.
- Macdonald, John Very; Nova Scotia.....748 Gresham Place
A.B., 1912, Valparaiso University. *Topics*—Major, History; Minors, Philosophy, Education
- Magnusson, Leifur; Minnesota.....1513 Meridian Place
A.B., 1905, University of Minnesota. *Topics*—Major, Economics; Minors, Sociology, History.
- Mallory, William Johnston; District of Columbia,
1720 Connecticut Ave.
M.D., 1903, George Washington University. *Topics*—Major, Physiology and Pharmacology; Minors, Pathology, Chemistry.
- Merrill, Margaret Bell; Vermont.....1735 New Hampshire Ave.
A.B., 1899, Wellesley College. *Topics*—Major, English; Minor, Education.
- Moneyway, James Louis; Florida.....1454 Fairmont Street
A.B., 1912, George Washington University. *Topics*—Major, French; Minors, English, English.
- Newbold, Katharine Mitchell; Maryland,
11 Irving Street, Chevy Chase, Md.
A.B., 1912, George Washington University. *Topics*—Major, Latin; Minors, Greek, Archaeology.
- Schwartz, Claus Johann; Germany.....3526 11th Street
A.B. and Teacher's Diploma, 1908, George Washington University. *Topics*—Major, German; Minors, French, Education.
- Scott, Mabel Lavinia; District of Columbia.....1455 Girard Street
A.B., 1907, George Washington University. *Topics*—Major, English; Minors, German, History.
- Trowbridge, Daisy Ethel; District of Columbia.....1821 H Street
A.B., 1912, Wellesley College. *Topics*—Major, English; Minors, Philosophy, Economics.
- White, Mary Josephine; Maryland,
National Park Seminary, Forest Glen, Md.
Topics—Major, English; Minors, German, History.
- Williams, Ashton Hilliard; South Carolina.....201 C Street
A.B., 1912, University of South Carolina. *Topics*—Major, English; Minors, History, Economics.

DOCTOR OF PHILOSOPHY

- Alden, Levi Russell; District of Columbia.....809 L Street
A.B., 1903, A.M., 1904, LL.B., 1906, George Washington University. *Topics*—Major, History; Minors, Law, History.
- Almy, Lloyd Huber; Illinois.....1709 17th Street
S.B., 1909, University of Illinois. *Topics*—Major, Chemistry; Minors, Engineering, Bacteriology.
- Anderson, Hans Wilhelm Ferdinand; Germany, 1435 Massachusetts Ave.
A.B., 1912, George Washington University. *Topics*—Major, Economics; Minors, Sociology, Psychology.
- Churchill, George Morton; Massachusetts.....520 E Street N. E.
A.B., 1896, Boston University; A.M., 1909, George Washington University. *Topics*—Major, History; Minors, Economics, History.
- Cohen, George Grauman; Indiana.....1230 11th Street
A.B., 1907, LL.B., 1907, Indiana University. M.Dip., 1912, The George Washington University. *Topics*—Major, International Law; Minors, Sociology, Economics.
- Custis, Horace Hatch; District of Columbia.....The Iroquois
A.B., 1906, Johns Hopkins University; A.M., 1908, George Washington University. *Topics*—Major, Chemistry; Minors, Chemistry, Bacteriology.
- Doyle, Aida Mary; Pennsylvania.....1359 Park Road
S.B., 1898, S.M., 1899, George Washington University. *Topics*—Major, Chemistry; Minors, Chemistry, Microscopy.
- Hall, Maurice Crowther; District of Columbia,
Bureau of Animal Industry
S.B., 1905, Colorado College; A.M., 1906, University of Nebraska. *Topics*—Major, Zoology; Minors, Zoology, Pathology.
- Huddle, John Thomas; District of Columbia.....738 11th Street
A.B., 1891, A.M., 1896, Roanoke College. *Topics*—Major, English; Minors, Psychology, Philosophy.
- Ice, Harry Lawrence; Maryland.....Mt. Rainier, Md.
A.B., 1912, A.M., 1912, Bethany College. *Topics*—Major, Philosophy; Minors, English, Sociology.
- Jackson, Hartley Harrad Thompson, District of Columbia,
1326 Euclid Street
A.B., 1904, Milton College; A.M., 1909, University of Wisconsin. *Topics*—Major, Zoology; Minors, Zoology, Psychology.
- Johnston, Wilmer P.; Virginia.....142 S Street
A.B., 1904, Randolph Macon College; B.D., 1908, Vanderbilt University. *Topics*—Major, Philosophy; Minors, History, Sociology.
- Kibler, Thomas Latimer; Virginia.....1715 35th Street
A.B., 1904, Randolph Macon College; A.M., 1908, George Washington University. *Topics*—Major, Economics; Minors, History, Sociology.

- Lyon, Marcus Ward; New Jersey.....48 V Street
B.P., 1897, Brown University; S.M., 1900, M.D., 1902, George Washington University. *Topics*—Major, Zoology; Minors, Neurology, Histology.
- Marshall, Elmer Eugene; District of Columbia.....10 K Street N. E.
A.B., 1889, Ohio Wesleyan University; S.T.B., 1894, Boston University. *Topics*—Major, History; Minors, Philosophy, Semitics.
- Morse, Elisha Wilson; District of Columbia.....1723 Willard Street
B.A.S., 1897, Harvard University. *Topics*—Major, Zoology; Minors, History, Economics.
- Palkin, Samuel; District of Columbia.....1738 15th Street
Ph.B., 1910, Yale University. *Topics*—Major, Chemistry; Minors, Bacteriology, Microscopy.
- Rankin, John Owen; Missouri.....University of Minnesota
A.B., 1904, Tarkio College; A.M., 1912, George Washington University. *Topics*—Major, Economics; Minors, Political Science, International Law.
- Roark, Ruric Creegan; Kentucky.....1215 Harvard Street
A.B., 1907, University of Cincinnati; A.M., 1908, University of Illinois. *Topics*—Major, Chemistry; Minors, Bacteriology, Pharmacology.
- Schwartz, Claus Johann; Germany.....3526 11th Street
A.B. and Teacher's Diploma, 1908, George Washington University. *Topics*—Major, German; Minors, French Education.
- Sniffin, William Webb; District of Columbia.....2625 Garfield Street
A.B., 1906, A.M., 1907, George Washington University. *Topics*—Major, French; Minors, Spanish, Philosophy.
- Sweet, Otis, Dow; Maryland.....1325 H Street
LL.B., 1891, LL.M., 1892, S.B., 1904, S.M., 1909, George Washington University. *Topics*—Major, Chemistry; Minors, Chemistry, Bacteriology.
- Ulke, Titus; District of Columbia.....Patent Office
Met.E., 1889, Royal Academy of Mines, Freiberg, Saxony; LL.B., 1908, M.P.L., 1909, S.B., 1909, George Washington University. *Topics*—Major, Zoology; Minors, Zoology, Botany.
- Young, (Mrs.) Julia Elektra Ludlow; France..National Cathedral School
A.B., 1906, Columbia University; A.M., 1909, George Washington University. *Topics*—Major, Greek; Minors, Latin, Archaeology.

THE COLLEGES

The following list includes all undergraduate students. The registration is indicated by the abbreviations: C. C., Columbian College; Eng., for College of Engineering and Mechanic Arts; C. P. S., for College of Political Sciences*; T. C. for Teachers College. The letters c.,

* Merged with Columbian College at the close of the academic year 1912-13.

e., m., and a., after the abbreviation Eng., indicates that the student is a candidate for the bachelor's degree in Civil, Electrical, or Mechanical Engineering, or in Architecture; the absence of these letters indicates a special student.

- Abbott, Ruth Estelle, T. C.; District of Columbia...1308 Spring Road
 Adams, Vera Elsie, C. C.; District of Columbia.....The Wellington
 A.B., 1909 George Washington University.
 Agramonte, Pedro H., Eng. e; New York.....1417 K Street
 M.E., 1911, Columbia University.
 Ahern, William John, Eng.; District of Columbia.....1302 T Street
 Albes, Julia Fredericka, C. C.; Alabama.....1356 Fairmont Street
 Alden, LeRoy F., Eng.; District of Columbia.....3420 O Street
 Alexander, Walter Richardson, C. C.; Missouri,
 1101 Rhode Island Avenue
 Almon, Harry Foster, Eng.; District of Columbia.....725 11th Street
 Anders, Walter Lesesne, C. C.; Texas.....708 19th Street
 Anderson, Henry M., C. C.; District of Columbia.....3030 R Street
 Anderson, James Francis, Eng.; Ohio.....402 M Street
 Applebaum, Aaron L., Eng.; N. J.....621 P Street
 Appleby, Charline Elizabeth, C. C.; Indiana.....The Ramona
 Appleby, Wilmer Conrad, C. C.; Indiana.....The Ramona
 Arledge, Caroline Mascott, C. C.; District of Columbia,
 2628 Garfield Street
 Arnold, Virginia Josephine, T. C.; District of Columbia,
 1824 Monroe Street
 Ashford, Linden Kent, Eng.; District of Columbia....48 Bryant Street
 Avers, Henry Godfrey, C. C.; Ohio.....8 Fourth Street S. E.
 Ayler, Ruth L., C. C.; District of Columbia....244 Eighth St. N. E.
 Bacon, Seward, C. C.; District of Columbia....2622 Connecticut Ave.
 Bailey, Marion Prentiss, C. C.; South Carolina.....1208 15th Street
 Barber, Charles W., Eng. e.; District of Columbia. 3428 Brown Street
 Barnes, Marjorie, C. C.; Maryland.....143 Eleventh Street N. E.
 Barnum, Walter Livingston, C. C.; Vermont.....412 B Street N. E.
 Barr, L. Stewart, C. C.; District of Columbia.....The Wyoming
 Barrett, Samuel Melton, C. C.; District of Columbia,
 1818 Belmont Road
 Bashford, Margaret Josepha, T. C.; Virginia,
 Bashford Road, Alexandria, Va.
 Baston, George Henry, C. C.; Maine.....2140 N Street
 Baylies, Lyndon H., C. C.; Nebraska.....603, Y. M. C. A.
 Bean, Tarleton Smith, Eng.; Pennsylvania. 312 Randolph Place N. E.
 Beekly, Albert L., C. C.; Nebraska.....Geological Survey
 Beller, Frederick Franklin, C. P. S.; District of Columbia,
 235 First Street N. E.
 Beller, Elizabeth Caroline, T. C.; District of Columbia,
 235 First Street N. E.

- Beller, Sadie White, T. C.; District of Columbia
235 First Street N. E.
- Beneman, Harry G., C. C.; Maryland..... 904 Westminister Street
- Bennett, Harry, Eng.; Pennsylvania..... 511 Fifth Street N. E.
- Benton, Ralph Webster, C. C.; District of Columbia. 462 O Street
- Berger, Carey Kingsbury, C. C.; Iowa..... Y. M. C. A.
- Best, Joanna Elizabeth, C. C.; District of Columbia, 1133 Euclid Street
- Bizzell, Carey, K., C. C.; District of Columbia..... The Burlington
- Bjornstad, Arthur Bernard, C. P. S.; Minnesota..... 710 19th Street
- Black, James, E., C. C.; New York..... 1225 O Street
- Blanchard, Mabel Elizabeth, C. C.; District of Columbia,
806 Massachusetts Avenue
- Boesch, Harry Luther, Eng.; District of Columbia.. 616 E Street N. E.
LL.B., 1908, George Washington University.
- Bontz, Mary Ellen, T. C.; Virginia
422 North Alfred Street Alexandria, Va.
- Boone, Pearl Lee, C. C.; Maryland..... Hyattsville, Md.
- Bopp, William Elmer, Eng. e.; District of Columbia,
531 10th Street S. E.
- Bortman, Isaac Maurice, C. C.; Pennsylvania..... 4907 14th Street
- Boas, Lewis Hudson, Eng. a.; District of Columbia,
3312 Eighth Street N. E.
- Bothwell, Harry Briggs, Eng.; Pennsylvania.. 420 Fourth Street N. E.
- Bowman, John Alexander, C. C.; District of Columbia,
1306 Euclid Street
- Boyle, Albert H., C. C.; Montana..... 1121 Girard Street
- Braddock, Roberta Iola, C. C.; District of Columbia. 2620 13th Street
- Brame, Arthur H., Eng. e.; District of Columbia..... 1217 O Street
- Brand, Albert Arnold, Eng. e.; Indiana..... 621 19th Street
- Bredenkamp, Ruth, C. C.; District of Columbia..... Woodridge, D. C.
- Breneman, Claude R., C. C.; District of Columbia,
935 New York Avenue
- Breuninger, Henry L., Eng. m.; District of Columbia. 3208 19th Street
- Brewer, Elin Gilmore, C. C.; District of Columbia ... 608 Mass. Avenue
- Brigham, Gertrude R., C. C.; Massachusetts..... Smithsonian Institute
- Brock, Walter Burritt, C. C.; District of Columbia, 2120 Conn. Avenue
- Brockwell, John, C. C.; North Carolina..... 1259 Morse Street, N. E.
- Brown, Alvin McCreary, C. C.; Maryland..... Berwyn, Md.
- Brown, Ammi, C. P. S.; Colorado..... 5 B Street
A.M., 1902, Harvard University.
- Brown, Mary, T. C.; District of Columbia..... 2464 Ontario Road
- Brown, Wager Swayne, Eng.; District of Columbia,
Apt. 2, 1475 Col. Rd.
- Browne, Gertrude Veronica, T. C.; District of Columbia
1121 Girard Street
- Browne, Margaret Marian, C. C.; District of Columbia,
1340 Girard Street

Browning, Martha Ringgold, C. C.; District of Columbia.

707 East Capitol Street

Buchanan, Omar Bailey, Eng. e.; District of Columbia 901 M Street

Bull, Wilfrid Douglas, C. P. S.; California..... 1627 19th Street

Bullion, Clarence Leroy, Eng.; Ohio..... 4434 Kansas Avenue

L.L.B. 1912, George Washington University.

Bullough, George VanNess, C. C.; District of Columbia.

122 Tennessee Avenue

Burchard, Edwin Day, Eng. e.; District of Columbia..... 1113 S Street

Burden, Katherine, C. C.; District of Columbia, 1237 Crittenden Street

Burdette, Walter W., C. C.; Virginia,

R. F. D. No. 4, Station "A" Washington, D. C.

Burean, Elmer J., C. P. S.; Michigan..... 2024 F Street

Burgess, James Irving, Eng.; District of Columbia,

403 Eleventh Street S. E.

Burke, Ellen Teresa, C. C.; District of Columbia,

531 Jefferson Street, Brightwood Park, D. C.

Burns, John Carter, C. C.; Pennsylvania... 1129 New Hampshire Ave.

Burritt, Alice, C. C.; District of Columbia..... The Cliffborne

Burt, Edwin Caleb, C. C.; District of Columbia, 1102 Vermont Avenue

Bush-Brown, James, C. C.; District of Columbia..... 1729 G Street

Caemmerer, Johannes Paul, C. C.; Wisconsin..... 925 L Street

Caffrey, Charles Rogers, Eng.; District of Columbia... 5801 14th Street

Callahan, Charles Aubrey, Eng. e.; Virginia

213 South Fairfax Street Alexandria, Va.

Callander, William F., C. P. S.; Illinois..... 4129 9th Street

Cam, Helen Elizabeth, T. C.; District of Columbia..... 58 T Street

Campbell, Arthur B., Eng. e.; Missouri, 24 Rhode Island Avenue N. E.

Carden, Samuel Poe, C. C.; Texas..... 1229 O Street

Carpenter, Clarence Forrest, Eng. a.; Indiana..... 601 Y. M. C. A.

Carpenter, Lillian Evans, T. C.; District of Columbia, 205 D Street N. E.

Carter, Francis Edward, C. C.; Virginia Episcopal High School

Carter, Scott, Eng.; Indiana..... 3351 Mt. Pleasant Street

Cash, Edith Katherine, C. C.; District of Columbia,

126 Tennessee Avenue N. E.

A.B. 1912, George Washington University.

Chamberlin, Pierre Audrey, C. P. S.; District of Columbia, 1323 M Street

Chaney, Orilla C., C. C.; District of Columbia..... The Plymouth

Chapin, Mabel Louise, C. C.; District of Columbia,

132 Kentucky Avenue S. E.

A.B. 1912, George Washington University.

Chapman, John Holbrook, Eng. m.; District of Columbia,

3323 Wisconsin Avenue

Cheney, Edith, C. C.; District of Columbia 816 Taylor Street

Cheston, Geoffrey H., C. C.; New York U. S. Botanic Garden

Chidester, Orpha Arlington, Eng. e.; West Virginia... 1121 1/2 12th Street

A.B., 1910; A.M., 1910, Washington and Lee University.

- Church, Grace Ella, C. C.; Virginia Cherrydale, Va.
 Claytor, Spry Owen, C. C.; Ohio 1504 Columbia Road
 Clevenger, Florida Frances, C. C.; District of Columbia,
 2411 Pennsylvania Avenue
 Cochrane, John Edward Walker, Eng. c.; District of Columbia,
 Imperial Apartment House
 Coe, Mayne R., C. C.; District of Columbia. 2947 Mills Avenue N. E.
 Cohen, Maurice, C. P. S.; District of Columbia 408 26th Street
 Cokinos, Philip Dionysius, C. C.; Greece 924 9th Street
 Cole, Charles S., C. P. S.; Iowa 5315 8th Street
 Coleman, Richard Donaldson, C. P. S.; District of Columbia,
 1003 M Street S. E.
 Collins, Philip LeRoy, Eng.; District of Columbia, Library of Congress
 Collins, William Moore, C. C.; District of Columbia. 1218 Euclid Street
 Conboye, William T., Eng. a.; California 311 M Street
 Conner, Lulu Elizabeth, C. C.; District of Columbia 12 Iowa Circle
 A.B., 1908, George Washington University.
 Cook, J. Leslie, C. C.; District of Columbia 1626 Monroe Street
 Cook, James Williamson, C. C.; District of Columbia, 213 2d Street S. E.
 Coon, Nina Graves, C. C.; District of Columbia 1525 O Street
 Copeland, Leland S., C. C.; Missouri 1114 Euclid Street
 Corbett, Katherine C., C. C.; District of Columbia, 1411 Harvard Street
 Corning, Edward Burton, Eng. a; District of Columbia. 122 V Street
 Cornwell, Lillian Myrtle, C. C.; Virginia Great Falls, Va.
 Cost, Arlington Boone, C. C.; Maryland 1830 G Street
 Cost, Roscoe Wyand, Eng.; Maryland 1323 10th Street
 Crabtree, John Hinton, C. P. S.; Oklahoma; 1734 Pennsylvania Avenue
 Craton, Anna Washington, C. C.; North Carolina, 1346 Fairmont Street
 Craton, Richard Washington, Jr., Eng.; North Carolina,
 1346 Fairmont Street
 Crittenden, Alene Letitia, C. C.; District of Columbia, 1350 Irving Street
 Crook, Florence C., C. C.; District of Columbia,
 3413 13th Street, Brookland, D. C.
 Cullom, Edward, C. C.; Tennessee 1530 H Street
 A.B., University of Nashville, 1904; A.M., 1910, George Wash-
 ington University.
 Cumminford, Asa Norman, Eng.; Michigan 1223 D Street S. E.
 Cunningham, Julian Wallace, C. C.; District of Columbia,
 1636 Monroe Street
 Curl, Grace Irene, T. C.; District of Columbia 3658 Warder Street
 Dana, José P., Eng. c.; Philippine Islands 2122 H Street
 Dashiell, Emily Rose, T. C.; Maryland Library of Congress
 Davis, Minnie Carter, C. C.; Tennessee 218 F Street N. E.
 Davis, William Jones, Jr., C. C.; District of Columbia, 3433 14th Street
 Davison, Ruth Lowe, T. C.; District of Columbia 1437 Girard Street
 Deal, Roy Linney, Eng. a.; North Carolina Clarendon, Va.
 A.B., 1911, George Washington University.

- Degenhardt, George Albert, Eng. c.; Pennsylvania..... 911 23d Street
 Degnan, George A., Eng. c.; Pennsylvania..... 450 M Street
 Delany, James Leroy, Eng.; Ohio..... 600 Park Road
 De Long, Forrest Allen, Eng.; Pennsylvania..... 607 8th Street N. E.
 Denison, Harriet Alberta, C. C.; District of Columbia..... 3117 35th Street
 Dent, Mary Catherine, T. C.; District of Columbia..... 3009 P Street
 Dessez, Charlotte Caroline, T. C.; District of Columbia,
 1417 Belmont Street
 DeVaughan, William Aloysius, Eng.; Virginia..... Alexandria, Va.
 Deysher, Edgar F., C. C.; New Jersey..... 1416 A Street N. E.
 S.B., 1907, Pennsylvania State College.
 Diesman, Justin P., C. C.; Kentucky..... 452 K Street
 Dolliver, Garrett Brown, C. C.; South Dakota..... Y. M. C. A.
 Doran, Helen, C. C.; District of Columbia..... 2712 27th Street
 Dorr, George W., C. C.; Maryland..... Hyattsville, Md.
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 Dulac, Hilda North (Mrs.), T. C.; District of Columbia, 1226 15th Street
 Dulac, Victor, C. C.; District of Columbia..... 1226 15th Street
 Dunwoody, Halsey, C. C.; District of Columbia..... 1522 31st Street
 Graduate, 1905, United States Military Academy.
 Dutton, Donald Langley, Eng. c.; District of Columbia,
 1721 Kilbourne Place
 Duvall, James, C. P. S.; District of Columbia..... 2513 Wisconsin Avenue
 Duvall, Walker M., Eng. e.; District of Columbia..... 1831 M Street
 Dwyer, J. Rochford, Eng. e.; District of Columbia..... 628 F Street S. W.
 Earl, Donald Montgomery, C. C.; Maryland, Department of Agriculture
 Earnest, Mildred, T. C.; District of Columbia..... 1348 Newton Street
 Eddingfield, Ina Dean, T. C.; District of Columbia,
 1440 Harvard Street
 Egbert, Freda Dorothy, T. C.; District of Columbia..... 1739 First Street
 Eiker, Fillmore Winkopp, Eng. c.; Maryland, 6312 Connecticut Avenue
 Eiker, Mattie, C. C.; District of Columbia..... 1006 Otis Place
 Eldridge, Hattie Dayton, T. C.; North Carolina..... The Wellington
 Eliason, Raymond Orlando, Eng.; District of Columbia,
 214 4th Street S. E.
 Elwood, William A., Eng. c.; New York..... 119 C Street N. E.
 Engel, Abraham, C. C.; New York..... 511 K Street N. E.
 Ensign, Hattie Mae Dickson, C. C.; Colorado..... 4809 Iowa Avenue
 Erikson, Bernhard Edwin, C. C.; Illinois..... 706 20th Street
 Evans, Florence Elizabeth, C. C.; Ohio..... 205 D Street N. E.
 Everett, John Ridden, T. C.; Minnesota..... 1224 13th Street
 Fant, Jessie DuBois, T. C.; District of Columbia..... 115 12th Street S. E.
 Farmer, Mary Caroline, C. C.; North Carolina..... 154 A Street N. E.
 Farwell, Clarence Gilbert, C. C.; Massachusetts..... Y. M. C. A.
 A.B., 1910, George Washington University.
 Faunce, Mary E., C. C.; District of Columbia..... 317 11th Street S. W.

- Faye, James Jacob, Eng. m.; New York..... 54 Bryant Street
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 S.B., 1906, University of Pennsylvania.
 Ferguson, Elizabeth, T. C.; District of Columbia... 1239 Kenyon Street
 Ferguson, Marion Frances, C. C.; District of Columbia,
 1239 Kenyon Street
 Field, Luella, C. C.; District of Columbia..... 1934 Calvert Street
 Finch, Elmer Harrison, C. C.; Michigan..... U. S. Geological Survey
 Fisher, Lewis Civile, C. P. S.; Maryland..... 1769 Columbia Road
 Fitzhugh, Ethel Virginia, C. C.; District of Columbia, 124 12th Street S. E.
 Fleming, John Paton, C. C.; Virginia..... 1861 Wyoming Avenue
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 Francis, Grace, C. C.; District of Columbia..... 1833 California Street
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 Frazier, Elmer Sefton, C. P. S.; District of Columbia..... 125 S Street
 Frederick, Alfred Hardin, C. C.; Texas..... 1345 Vermont Avenue
 Freemire, Leroy H., Eng.; New York..... 1209 O Street
 Frizzell, Genevieve Margaret, T. C.; District of Columbia,
 241 8th Street N. E.
 Gabriel, Henry Leo, C. P. S.; Ohio..... 712 20th Street
 Galbraith, Esther Elizabeth, C. C.; Pennsylvania, 3425 14th Street N. E.
 Galbraith, Robert Karl, Eng.; Pennsylvania..... 1735 First Street
 Galloway, Alfred E., C. C.; Ohio..... 1741 G Street
 Garrett, William Ashton, Eng.; Maryland..... 2300 18th Street
 Gatchell, Marie Ellen, C. C.; District of Columbia... 1736 Park Road
 Gerhart, Herbert B., C. P. S.; Pennsylvania..... 907 23d Street
 B.L., 1911, George Washington University.
 Gerrick, John, C. C.; District of Columbia... 701 McLachlin Building
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 Giantvalley, Earl A., C. C.; Minnesota..... National Museum
 Gibbs, Kate Marie, T. C.; Massachusetts..... 1216 S Street
 Gleason (Mrs.), Mamie Martin, T. C.; Virginia,
 Cherrydale, Rural Station, Washington, D. C.
 Goding, Anna M., T. C.; Massachusetts..... 1419 R Street
 Goodman, Leopold A., C. C.; Massachusetts..... 488 E Street S. W.
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 Gore, Michael Alvord, C. C.; District of Columbia,
 1147 New Hampshire Avenue.
 Gorman, Alexander, C. C.; District of Columbia... 1729 Kilbourne Place
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 Grandfield, Helen McKee, C. C.; District of Columbia... 949 S Street
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 Greene, Elbridge Gerry, C. P. S.; Massachusetts..... 1821 Eye Street

- Griffith, Alice Eleanor, C. C.; District of Columbia... 1846 Ontario Place
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 Groseup, Arthur Wells, C. C.; Maryland..... Woodside, Md.
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 Hafford, Thomas A., Eng. c.; New York..... 1215 O Street
 Haines, Elvans Diehl, Eng.; District of Columbia..... 1340 R Street
 Haines, Margaret, C. C.; Pennsylvania..... 922 19th Street
 Hall, Walter J., C. C.; New York..... 128 C Street N. E.
 Halsey, Arthur Sherman, Eng. m.; Pennsylvania, 207 East Capitol Street
 Halsted, John Pennington, Eng. e.; Massachusetts.... The Albemarle
 Hamlin, Herbert Samuel, C. C.; Utah..... 1100 Vermont Avenue
 Handelsman, Samuel, C. C.; New York..... 808 H Street
 Hampton, Lucy J., C. C.; Oklahoma..... 1705 17th Street
 Hanson, Frank Blair, C. C.; District of Columbia, 710 Rhode Island Ave.
 Hanvey, Edna E., C. C.; District of Columbia.... 1315 Emerson Street
 Hardy, Margaret Boude, C. C.; District of Columbia,
 812 East Capitol Street
 Hardy, Rose L., C. C.; District of Columbia.... 812 East Capitol Street
 Harkness, Arthur Williams, C. C.; District of Columbia... 2224 F Street
 Harriman, Oliver Bishop, C. P. S.; Virginia..... 1725 H Street
 Harrison, Arthur P., C. C.; District of Columbia, Takoma Park, D. C.
 Harrison, Robert Horace, Eng.; District of Columbia, 2208 First Street
 S.B. in C.E., 1912, George Washington University.
 Harsch, Erwin, Eng. c.; Ohio..... 1318 Maryland Avenue N. E.
 Hart, Raymond Sager, Eng. a.; District of Columbia... 22 The Hoffman
 Harter, Eugene Claudius, C. P. S.; Ohio..... 923 12th Street
 Hartung, William Kenneth, C. C.; District of Columbia,
 1337 Harvard Street
 Hastings, Gertrude, C. C.; District of Columbia.... 905 B Street N. E.
 Hatfield, Harold De Wolfe, Eng. m.; District of Columbia, 1822 H Street
 Hauke, Rilla M., C. C.; District of Columbia,
 605 Massachusetts Avenue N. E.
 Hawbaker, Claude Clifford, C. P. S.; Michigan.... 338 8th Street S. E.
 Hazlett, Sylvia Jane, C. C.; Pennsylvania..... 2107 S Street
 Heald, Roy Haines, Eng. m.; Nebraska..... 2734 Sherman Avenue
 Hearne, Susan Snell, C. C.; Missouri..... 1307 P Street
 Hecht, Max, C. C.; New York..... 1206 Girard Street
 Heider, Anna L., C. C.; District of Columbia... 943 Westminster Street
 Heindl, Raymond, A., Eng. e.; Wisconsin..... 1036 11th Street
 Heine, Henry, W., Eng. m.; District of Columbia,
 502 Rhode Island Avenue
 Hellman, Dorothy, T. C.; District of Columbia, 2804 Cathedral Avenue
 Hellman, Florence S., C. C.; Wyoming..... 2804 Cathedral Avenue
 Henckels, Theodora Katherine, C. C.; District of Columbia,
 3614 Newark Street

Henderson, Robert Edgar, C. C.; District of Columbia,

1507 Meridian Place

Henry, Candor C., C. C.; Tennessee.....2036 F Street

Herndon, Neal Norton, Eng. m.; Alabama.....1515 Vermont Avenue

Heron, Louis Mann, Eng. e.; District of Columbia.....1322 14th Street

Hicks, R. E., C. C.; Maryland.....Rockville, Md.

Hidnert, Peter, Eng.; New York.....1136 8th Street

Hobbs, Ewart William, C. P. S.; Illinois.....1370 Perry Place

Hobbs, Virginia, C. C.; West Virginia.....The Cumberland

Hobgood, Katharine White, T. C.; Louisiana.....3631 10th Street

Hodgkins, Harry Grant, Jr., Eng.; Maryland.....Bethesda, Md.

Hodgkins, Howard Wilkinson, Eng. e.; District of Columbia,

1830 T Street

Hoffman, Edwin Summer, Eng. e.; Pennsylvania,

1007 Massachusetts Avenue N. E.

Hoffman, Henry B., C. C.; District of Columbia.....1120 7th Street N. E.

Hollister, Mabel Pfrimmer, C. C.; Arkansas.....1338 Oak Street

Holmes, Osgood, Eng.; District of Columbia.....1425 Belmont Street

Holmes, Thomas N., Eng.; South Carolina.....Y. M. C. A.

Horn, Arthur, C. C.; Illinois.....1017 12th Street

Hospital, Ralph, C. C.; District of Columbia.....Brookland, D. C.

Houghton, Carlos, C., C. C.; District of Columbia, 2011 Kalorama Road

Hoult, Geneva Frances, C. C.; Illinois.....New Varnum Hotel

Huff, Daisie Ione (Mrs.) T. C.; District of Columbia,

2134 F Street, Apartment 1W

Huff, Elkanah Wynn, Eng. e.; Colorado.....The Lester

Hughes, Anna S., C. C.; District of Columbia.....426 Fourth Street N. E.

Hughes, Lotus Graham, C. P. S.; West Virginia.....541 21st Street

Hughes, Mildred May, C. C.; District of Columbia, 218 6th Street S. E.

Hughes, William G., Eng. m.; District of Columbia,

The Eutaw Apartment

Hull, Flora, C. C.; District of Columbia.....The Iowa

Hummer, Elizabeth A., C. C.; District of Columbia,

812 E. Capitol Street

Hunsinger, Belford E., C. C.; Ohio.....151 Highland Terrace

Hunt, Estelle J., C. C.; Texas.....9 B Street

Hunt, John Stuart, C. P. S.; Texas.....1100 Vermont Avenue

Hunt, Paul Jamison, C. C.; District of Columbia.....1204 Girard Street

Hunter, Rosser Lee, Jr., C. C.; District of Columbia, 1340 A Street S. E.

Hurd, Willis L., C. C.; District of Columbia.....1515 T Street

Hurley, Lawrence David, Eng. e.; District of Columbia,

1225 Irving Street

Ingram, Charlton Weber, Eng. m.; District of Columbia

713 Taylor Street

James, William Stubbs, Eng. m.; Massachusetts.....1504 R Street

Jarboe, Edith, C. C.; District of Columbia,

633 Massachusetts Avenue N. E.

- Jeffrey, Earl Munro, C. C.; Wisconsin.....3124 Wisconsin Avenue
 Jeffrey, Warren Perry, Eng. e.; Washington.....1502 Vermont Avenue
 Jeffries, John Miller, C. C.; District of Columbia, 2148 Wyoming Avenue
 Johnson, Bert D., C. C.; District of Columbia.....1926 Eye Street
 Johnson, Charles Albert, T. C.; District of Columbia, 2837 12th Street
 Johnson, Gladys Wheatley, C. C.; District of Columbia,
 Ashby Street and Conduit Road
 Johnston, Mildred Floyd, C. C.; District of Columbia,
 1650 Monroe Street
 A.B., 1909, George Washington University.
 Jones, Anna Rosabelle, C. C.; District of Columbia,
 412 11th Street N. E.
 Jones, Hannah M., T. C.; Ohio.....2013 G Street
 A.B., 1908, Wellesley College.
 Jones, James Lyons, Eng. e.; Pennsylvania.....818 Allison Street
 Judd, Edwin E., C. P. S.; New York.....15 Todd Place N. E.
 Kain, Helen Gladys, C. C.; District of Columbia.....129 E Street
 Kaiser, Edw. J., Eng.; District of Columbia.....331 13th Street S. E.
 Karger, Theresa, C. C.; District of Columbia.....2616 Cathedral Avenue
 Katz, Charles Vernon, Eng.; New York.....923 M Street
 Kaulbeck, Clarence L., C. P. S.; Pennsylvania.....730 Taylor Street
 Kause, Robert Lincoln, Eng. e.; Ohio.....1905 Jackson Street N. E.
 Keister, James Lewis, Eng.; District of Columbia.....1711 Seventh Street
 Kellberg, Ira N., C. C.; District of Columbia.....1914 Calvert Street
 Kelley, Eva Phelps, C. C.; Maryland,
 122 Baltimore Avenue, Takoma Park, D. C.
 Kelley, John Nicholas, Jr., C. C.; Maryland.....Garrett Park, Md.
 Kellogg, Lucien T., C. P. S.; Washington...1314 Connecticut Avenue
 Kelly, Charles Frayer, C. C.; Michigan,
 2628 Myrtle Avenue, Woodridge, D. C.
 Kemmerer, Charles T., C. C.; Iowa,
 Apartment 32, The Newry, 1115 8th Street
 Ph.B., 1903, University of Iowa.
 Kent, Henry J., Eng. e.; District of Columbia, 3145 Mt. Pleasant Street
 Kerby, Florence Marcellina, C. C.; District of Columbia..2606 L Street
 Kerby, Katherine, C. C.; District of Columbia.....2606 L Street
 Kersey, Virginia, C. C.; District of Columbia, 1324 Massachusetts Ave.
 Kimball, Henry Frankland, C. P. S.; District of Columbia,
 4324 14th Street
 King, Edith Haynes, C. C.; Ohio.....918 M Street
 King, Myrtle Virginia, T. C.; District of Columbia, 328 10th Street N. E.
 Kingsbury, Joseph B., C. P. S.; Iowa.....Y. M. C. A.
 Kingsbury, Orrin Dean, Eng.; Iowa.....412 Y. M. C. A.
 Kinsell, Rex Emir, C. C.; Iowa.....1335 Massachusetts Avenue S. E.
 Kirk, Theodore T., Eng. e.; Kentucky.....2134 F Street
 Klager, Karoline, C. P. S.; Michigan.....1314 Park Road
 Kluge, Russell O., Eng.; New York.....2009 2d Street

- Knowles, Margaret Morton, T. C.; District of Columbia,
132 R Street, N. E.
- Knudson, Clarence A., C. C.; Wisconsin.....610 22d Street
- Koetz, Katherine, Eng. a.; Pennsylvania.....1323 Park Road
- Kothe, Charles, T. C.; New York.....1115 M Street
- Kramer, Miriam, C. C.; District of Columbia.....634 A Street S. E.
- Kruger, Henry Alexander, Eng.; District of Columbia,
726 9th Street S. E.
- Kuehn, Herman A., Eng. c.; Indiana.....411 P Street
- La Follette, Clara C., C.; Washington.....1825 California Avenue
- Lansche, Hattie M., C. C.; District of Columbia.....1012 N Street
- Larson, August Einar, Eng. m.; Sweden.....1730 18th Street
- Lasier, Emery L., Eng.; New Hampshire.....1427 Girard Street
- A.B., 1911, George Washington University.
- Lasier, Harriet Catherine, C. C.; New Hampshire...1427 Girard Street
- Lawson, Margaret Lucile, T. C.; District of Columbia,
206 13th Street N. E.
- Lazarus, I. Burt, C. P. S.; Massachusetts.....2036 F Street
- Lee, William Canfield, C. C.; Kansas.....Department of Agriculture
- Leland, Florence Ruth, C. C.; District of Columbia,
206 5th Street S. E.
- Leland, Leonard Jesse, Eng.; New York.....206 5th Street S. E.
- Lenney, John Joseph, C. P. S.; Virginia,
Apartment 101, The Atherton, 2112 F Street
- Leonard, Lewis Thompson, C. C.; District of Columbia,
520 G Street N. E.
- Leonard, William M., Eng. e.; Pennsylvania.....520 G Street N. E.
- Lepper, Henry Albert, C. C.; District of Columbia.....1620 6th Street
- Lewis, Allen Daniels, Eng. m.; New Jersey.....1800 8th Street
- Lewis Max E., C. C.; District of Columbia.....801 21st Street
- Lindsey, Irving, Eng. c.; Virginia...1009 Gibbon Street, Alexandria, Va.
- Lind, Ida May, T. C.; Iowa.....4516 14th Street
- Lindsey, Alfred B., C. C.; District of Columbia.....2550 14th Street
- Litchfield, Henry Edward, Eng.; District of Columbia,
308 L Street S. E.
- Livesay, Fannie Ellen, C. C.; District of Columbia,
1104 8th Street S. E.
- Llufrio, Ethel, C. C.; District of Columbia.....618 8th Street N. E.
- Lodholz, Louis, C. C.; Pennsylvania.....Y. M. C. A.
- Lockwood, Jane Girvan, T. C.; District of Columbia,
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- Lockwood, Margaret Mary, T. C.; District of Columbia,
Box 227, R. F. D. No. 4, Washington, D. C.
- Louis, HsiaoMin, C. P. S.; China.....Chinese Legation
- A.M., College of Languages, China.
- Love, Rebecca Laurence, C. C.; District of Columbia,
910 Massachusetts Avenue

- Lowe, Henry Burton, C. C.; Virginia.....215 5th Street N. E.
 Lowry, Mary Katharine, T. C.; Maryland,
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 Luckings, Harry C., C. C.; New Jersey.....508 7th Street N. E.
 Luthi, Frederic, C., C. P. S.; Switzerland.....918 19th Street
 Lynch, James Joseph, C. P. S.; Massachusetts.....1205 10th Street
 McAvoy, Charles A., C. C.; District of Columbia.....1860 Columbia Road
 McCabe, Lulu Mignonne, C. C.; Kansas.....3469 14th Street
 McCleary, Dorothy, C. C.; District of Columbia.....217 Eye Street
 McConkey, Mont, C. C.; Montana.....Office Indian Affairs
 McCormack, Joseph, C. P. S.; Pennsylvania.....2002 G Street
 McCormick, John D., Eng. e.; District of Columbia,
 1377 North Carolina Avenue N. E.
 Macdonald, John Very, T. C.; Nova Scotia.....48 Gresham Place
 A.B., 1912 Valparaiso University.
 MacFarlane, Nellie Rae, T. C.; District of Columbia.....2002 G Street
 McGill, Marie Cecilia, T. C.; District of Columbia,
 602 Tennessee Avenue N. E.
 McKee, Mary Therese, T. C.; District of Columbia.....2123 K Street
 McKnew, Donald Harrison, C. C.; District of Columbia,
 The Burlington
 McKnew, Jane Marion, T. C.; District of Columbia,
 1401 Columbia Road
 McKnight, Anna Lelia, C. C.; District of Columbia, 238 8th Street N. E.
 McLaughlin, De Witt Terheron, C. C.; Texas.....1359 Spring Road
 Magie, Hazel, C. C.; Maryland.....Bethesda, Md.
 Magoffin, Dorothy, C. C.; District of Columbia.....1489 Newton Street
 Magruder, Oliver Graham, Eng. e.; District of Columbia,
 765 Quebec Street
 Marks, Joseph, Eng. e.; Pennsylvania.....903 F Street N. E.
 Marlow, Stuart L., C. P. S.; District of Columbia.....3172 17th Street
 Marsden, Thomas James, Eng. e.; District of Columbia,
 701 E Street S. W.
 Martin, Frank W., Eng. e.; District of Columbia.....119 2d Street N. E.
 Martin, Ralph, Eng.; Rhode Island.....Carlisle Court
 Marvin, Francis Edwin, Eng. e.; New York.....606 F Street N. E.
 Maryman, J. Edgar, C. C.; District of Columbia,
 1304 Emerson Street N. E.
 Mason, Charles Summer, Eng. a.; District of Columbia.....1747 F Street
 Mason, Josephine Dwight, T. C.; Massachusetts,
 1348 Euclid Street, The Roanoke
 Mason, Samuel Worcester, Eng. e.; Virginia.....308 B Street N. E.
 Maxson, Louis Archer, C. C.; Maryland.....Y. M. C. A.
 Mayfield, John Preston, Eng. e.; District of Columbia,
 1912 Biltmore Street
 Meader, Carl, Eng. e.; Maine.....23 First Street N. E.
 Meany, Lloyd Emmart, Eng. e.; District of Columbia.....908 23d Street

- Meese, Norman S., C. C.; New York 1601 15th Street
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 Mentzer, Florence Eberly, C. C.; Pennsylvania,
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 Merritt, Leonard Atkins, C. P. S.; Minnesota..... 154 F Street S. E.
 Middleton, Herbert Paul, Eng. c.; New York..... The Ardmore
 Miller, Annette Searle, C. P. S.; District of Columbia,
 13 10th Street N. E.
 Miller, Odver H., Eng. a.; Kansas..... 1312 Fairmont Street
 Milliken, Florence Ethel, T. C.; District of Columbia... 468 P Street
 Miner, Helen, C. C.; Ohio..... 1212 L Street
 Mitchell, John LeRoy, Eng. m.; Pennsylvania..... 1241 B Street S. E.
 Mizell, Joseph Zachary, C. C.; Florida..... Treasury Department
 Moffat, Curtis, C. P. S.; New York..... 1725 H Street
 Monk, Ella May, T. C.; New York... 902 Massachusetts Avenue N. E.
 Moore, Kate Carroll, C. C.; District of Columbia... 2024 15th Street
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 Department of Agriculture
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 Moreland, John Edwin, Eng. e.; District of Columbia,
 Chevy Chase, D. C.
 Morrison, Helen M., C. C.; District of Columbia... 1957 4th Street N. E.
 Morrison, Hugh Shannon, Eng.; Maryland
 Station H, R. F. D. No. 1, Washington, D. C.
 Morse, Wilson, Eng.; Massachusetts..... 1723 Willard Street
 Moyer, Florence W., C. C.; District of Columbia... 610 8th Street N. E.
 Muench, Elsa Dorothea, C. C.; District of Columbia..... 307 C Street
 Mulford, (Mrs.) Bessie Boyd, T. C.; District of Columbia
 3014 Dent Place
 Muncey, Eliot M., C. C.; District of Columbia..... 2006 F Street
 Murlin, Don Elbert, Eng. e.; District of Columbia... 1874 Monroe Street
 Murray, Thomas P., Eng. c.; Massachusetts,
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 Nash, James Philip, Eng. c.; Pennsylvania..... 1100 Vermont Avenue
 Nash, Martha Virginia, T. C.; Virginia..... Manassas, Virginia
 Neale, Ronald Beaman, C. P. S.; District of Columbia... The Woodley
 Needham, Arthur E., C. C.; Massachusetts..... War Department
 Nellis, William L., C. P. S.; Ohio..... Y. M. C. A.
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 Newburgh, Frederic, Eng.; Wisconsin..... 1421 Columbia Road
 LL.B., University of Wisconsin; LL.M., National University.
 Nichols, Helen Gilman, T. C.; District of Columbia,
 2604 University Place
 Nickels, Edward Bilmer, Eng. m.; District of Columbia,
 122 Florida Avenue

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61 Rhode Island Avenue
- Noonan, Thomas W., Eng.; District of Columbia, 1331 Vermont Avenue
- Norris, Dorris Helen, C. C.; District of Columbia... 35 Q Street N. E.
- Norton, Frederick Aloysius, C. C.; Massachusetts, Bureau of Chemistry
- Ober, George Clarke, C. C.; District of Columbia... 125 B Street S. E.
- O'Donnell, Ruth L., C. C.; District of Columbia... 1207 F Street N. E.
- O'Rourke, Francis Joseph, Eng.; Rhode Island... 623 19th Street
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- Papa, Joseph M. A., Eng. e.; Italy... Wesley Chapel
- Parks, Charles Webb, C. C.; District of Columbia... 2463 6th Street
- Parks, George Edward, C. C.; District of Columbia... 2463 6th Street
- Parris, Morris Addison, C. C.; District of Columbia... 3022 P Street
- Passmore, Senes Breton, Eng.; Pennsylvania,
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- Patrick, Ermin Chambers, Eng.; District of Columbia,
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- Patterson, Ruth Capelle, T. C.; District of Columbia... 2016 15th Street
- Paul, Mabel Spencer, C. C.; District of Columbia, 3537 Holmead Place
- Paul, Walter Edwin, C. C.; Illinois... 3537 Holmead Place
- Paynter, Vernon E., C. C.; Virginia... The Cairo
- Peck, Allen Eugene, Eng. m.; District of Columbia,
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- Penagos y R., Areesis, C. P. S.; Columbia... Columbia Legation
- Pendleton, Agnes Louise, T. C.; District of Columbia... 901 M Street
- Perry, Emily Kershaw, C. C.; District of Columbia... Florence Court
- Peter, Alan Mary, C. C.; Maryland... Kensington, Md.
- Peterson, Frank D., Eng. e.; Illinois... 517 Y. M. C. A.
- Phillips, George Washington, C.C.; District of Columbia, 612 18th Street
- Phillips, Marc, Eng.; Virginia... 1360 Irving Street
- Pidgeon, C. Chandlee, C.C.; District of Columbia, 1207 Harvard Street
- Pierce, Sara, C.C.; District of Columbia... 1350 Oak Street
- Piper, Edgar Raymond, Eng. a.; Connecticut... 2106 F Street
- Plank, Mildred Marion, C.C.; Nebraska... 115 5th Street, N. E.
- Pope, George Samuel, Eng. m.; Illinois... 1321 East Capitol Street
- Pope, Ruth Vesta, C.C. a.; California... 1340 Meridian Place
- Popp, Frederick W., Eng. e.; New York... 1710 Pennsylvania Avenue
- Porter, Charles Wallace, C.C.; Ohio... 1010 N Street
- Porter, Irwin, Eng. a.; District of Columbia... 3225 11th Street
- Porter, Robert Grove, C.C.; Virginia... 3537 Holmead Place
- Potter, Charles Hollister, C.C.; North Carolina... 918 F Street

- Pozen, Morris A., C.C.; District of Columbia.....621 P Street
 Prender, Elizabeth, C.C.; District of Columbia...747 10th Street, S. E.
 Price, Robert Lyons, C.C.; North Carolina.....123 B Street, S. E.
 Prichard, Walter, C.C.; Porto Rica.....War Department
 Primm, Herbert Wilson, C.C.; District of Columbia, 728 Lawrence Street
 N. E.
 Prince, Fern Herbert, T.C.; District of Columbia...742 N. J. Avenue
 Pywell, Laura Virginia, T.C.; District of Columbia.....72 V Street
 Rafterry, May Agnes, T.C.; District of Columbia....1412 30th Street
 Rager, Amy Elizabeth, C.C.; District of Columbia....812 21st Street
 Ramsdell, Paul, Eng.c; District of Columbia.....No. 22 The Gotham
 Ramsey, Herbert Percy, C.C.; District of Columbia, 812 Massachu-
 setts Avenue, N. E.
 Raymond, Norman Ticknor, C.P.S.; New Jersey....1406 Allison Street
 Reavis, Andrew Bryant, Eng.; Tennessee.....1502 Vermont Avenue
 A.B., 1912, George Washington University
 Redfield, Arthur Huber, C.C.; District of Columbia, 9 Randolph Pl.N.E.
 Reese, Clarence Herbert, C.C.; District of Columbia..2016 9th Street
 Reese, Clement Milton, Eng.; Maryland.....Y. M. C. A.
 Reeve, Felicia Ann, T.C.; District of Columbia.....1626 19th Street
 Reeve, Laura Washburn, T.C.; District of Columbia..1626 19th Street
 Reeves, Fanny Lee, T.C.; District of Columbia.....730 22d Street
 Reges, George, Jr., Eng.; New Jersey.....603 6th Street, S. W.
 Reisinger, Margaret Edna, C.C.; District of Columbia..1836 4th Street
 Renner, Wilbert Vernon, Eng.c; District of Columbia, 1605 Rhode
 Island Avenue, N. E.
 Richard, Charles B., Eng.; Colorado.....1860 Mintwood Place
 Richard, Frank Thomas, Eng.m.; Colorado.....1860 Mintwood Place
 Richards, Henry Tilton, T.C.; Massachusetts, Apt. 41, The Landmore
 Richard, Herbert Ephraim, C.P.S.; Tennessee.....1000 M Street
 Riley, Cathryn Vedralia, C.C.; District of Columbia.....1754 S Street
 A.B., 1912, Wellesley College
 Riley, Thora M., C.C.; District of Columbia.....1754 S Street
 Riley, Mary Olive, C.C.; District of Columbia.....1754 S Street
 A.B., 1904, Wellesley College
 Rini, Vitus Michael, C.P.S.; New York...1355 Maryland Avenue N. E.
 Ritt, Joseph Fels, C.C.; District of Columbia.....1328 W Street
 Roberts, Frederick Logan, C.P.S.; Pennsylvania.....211 Y. M. C. A.
 Roberts, Iorwerth J., C.C.; Pennsylvania.....1310 Spring Road
 Robinson, Ednah Florence, T.C.; District of Columbia, 2817 28th Street
 Rochon, Louise Antoinette, C.C.; District of Columbia, 3303 13th Street
 Rodgers, Bertha, T.C.; District of Columbia, 1445 Massachusetts Avenue
 Rodier, Gilbert L., Eng.; District of Columbia, 1253 Talbert Street, S. E.
 Rohrer, Joseph R., C.C.; Ohio.....The Plymouth
 Rollins, James Herrell, T.C.; Virginia, R. F. D. No. 2 Alexandria, Va.
 Roper, Daniel Calhoun, Jr., C.C.; South Carolina, 816 Massachusetts
 Avenue, N. E.

- Rose, Leonard Julian, Eng.e.; District of Columbia, 730 Shepherd Street
 Rosen, Urban F., Eng.m.; District of Columbia. Bureau of Standards
 Rosenberg, Samuel Lee, Eng.,e.; New Jersey, 655 16th Street, N. E.
 Rowley, Clifford Alonzo, Eng.; South Dakota.....1344 Kenyon Street
 M.P.L., 1909; S.B., 1911; George Washington University; LL.B.,
 1909; LL.M., 1912; National University
 Ruff, Julia Elizabeth, C.C.; District of Columbia. 805 A Street, S. E.
 Ruffner, Willis E., C.C.; Pennsylvania.....1432 M Street
 Russell, Paul G., C.C.; District of Columbia.....3538 Warder Street
 Ryan, Thomas Henry, C.C.; Colorado.....1400 Chapin Street
 Salant, (Mrs.) Annie, C.C.; District of Columbia. 1647 Lamont Street
 Sale, Prentiss D., Jr., Eng.e.; District of Columbia, 225 Sth Street N. E.
 Sanders, Elsie, T.C.; District of Columbia.....1515 Park Road
 Saunders, Marie K., Eng.; Oklahoma.....The Brunswick
 LL.B., 1909; Washington College of Law; M.P.L., 1910; George
 Washington University
 Schenck, Mrs. Stella R., C.C.; Indiana.....514 Kenyon Street
 Schladt, George J., Eng.e.; District of Columbia, Potomac Heights, D. C.
 Schlosser, Julius L., C.C.; District of Columbia.....611 Lamont Street
 Schmidt, Alfred Gable, Eng.a.; Pennsylvania.....1936 First Street
 Schmidt, Meta, C.C.; District of Columbia.....1912 G Street
 Schmitt, Waldo Lasalle, C.C.; District of Columbia, 211 Florida Avenue
 Schoenfeld, Rudolph, C.C., District of Columbia, 3448 34th Place, Cleve-
 land Park, D. C.
 Schragenheim, Betty, C.C.; District of Columbia. 1836 Lamont Street
 Schul, Louise Amy, C.C.; District of Columbia, 235 New Jersey Avenue
 Scott, Howard, C.C.; District of Columbia.....1331 3d Street
 Scott, Leila Fordham, C.C.; District of Columbia, 649 B Street, N. E.
 Seaman, Alexander Rives, C.C.; Virginia.....Alexandria, Va.
 Searle, Juliet, MacCall, T.C.; District of Columbia.....1131 12th Street
 Seiler, Alfred Grove, C.C.; District of Columbia, American University
 Park
 Seltzer, Harry Gabriel, T.C.; Pennsylvania.....907 23d Street
 Sharpless, Frank E., Eng.; District of Columbia, 234 11th Street, S. E.
 Sheffield, Edgar, C.C.; District of Columbia.....1017 12th Street
 Short, Helen M., C.C.; District of Columbia.....1511 Park Road
 Shuman, Royal L., C.C.; Pennsylvania.....3519 14th Street
 Silber, Walter Charles, Eng.; Pennsylvania.....239 9th Street, N. E.
 Silvester, Jane B., C.C.; District of Columbia.....2005 Kalorama Road
 Simmons, Lybrook, Eng.; Virginia.....East Falls Church, Va.
 Simpson, Walter Scott, Eng.m.; District of Columbia, 508 10th Street,
 S. E.
 Skinner, Arthur William, Eng.m.; Maryland.....Takoma Park, Md.
 Sllarrow, Malcolm Gordon, Eng.e.; District of Columbia, 1308 13th Street
 Slindee, Michael E., C.C.; Iowa.....Y. M. C. A.
 Sloane, Charles E., Eng.; District of Columbia.....1733 T Street
 Small, Thomas Lemuel, C.C.; District of Columbia, 426 15th Street, S. E.

- Smith, Addison Wells, Eng.a.; District of Columbia, 1866 California Street
- Smith, Baillie Fiesco, Eng.a.; District of Columbia..... 1747 P Street
- Smith, Duncan Campbell, C.C.; Maryland..... Rockville, Md.
- Smith, Harold C., C.C.; Maryland..... Rockville, Md.
- Smith, Janie Alice, C.C.; District of Columbia, 637 Massachusetts Avenue, N. E.
- Smith, Jessie MacLure, C.C.; Pennsylvania..... 315 H Street
- Smith, McClain Barwitz, Eng.e.; Pennsylvania, 658 Morris Street, N. E.
- Smith, Raymond Chester, Eng.; Virginia..... Ballston, Va.
- Snelling, Henry Horner, Eng.m.; Virginia..... 3522 10th Street
- Soling, Abraham, Eng.; New York..... 808 H Street
- Soto, Santos, (h) Eng.; Honduras..... 2006 F Street
- Soubliene, Wilbert C. Dela, Eng.e; Canada..... 2025 G Street
- Southgate, Letitia Park, C.C.; District of Columbia, 1439 Fairmont Street
- Spencer, Nellie Scribner, C.C.; District of Columbia... 3810 5th Street
- A.B., 1901 Hiram College; A.M., 1906, George Washington University
- Spiker, Clarence Jerome, C.P.S.; District of Columbia, 1641 13th Street
- Springer, Lew Wallace, C.P.S.; New Mexico..... The Benedict
- Stambaugh, Henry Joseph, Eng.; District of Columbia, 3833 14th Street
- Stambaugh, Josephine, C.C.; Virginia..... Falls Church, Va.
- Stannard, Winfield S., C.C.; Massachusetts..... Bureau of Standards
- Starr, Relda A., C.C.; District of Columbia..... 120 Randolph Place
- StClair, Albert Thurston, Eng.e.; District of Columbia... 1319 T Street
- Steck, Charles Frederick, Jr., C.C.; District of Columbia 1620 Riggs Place
- Stein, Percy, C.C.; District of Columbia..... 1524 7th Street
- Steinberg, Aaron, C.C.; New York..... 828 12th Street
- Steinberg, Abraham, C.C.; New York..... 1213 H Street
- Stevens, Edwin Holt, C.C.; Maryland, 823 N. Fulton Ave., Baltimore, Md.
- Stewart, Elizabeth Tabb, T.C.; Virginia..... East Falls Church, Va.
- Stockard, Marietta, T.C.; North Carolina..... 1627 Lamont Street
- Stockton, Thomas Jefferson, Eng.e.; Kansas..... 1944 Second Street
- Stoever, Frank Wallace, Eng.; District of Columbia.... 1706 You Street
- Stoll, Clara, C.C.; District of Columbia... 1302 Rhode Island Avenue
- Stutler, H. Ward, Eng.a.; West Virginia..... Y. M. C. A.
- Stutzman, William Ernest, Eng.e.; District of Columbia, 3533 Warder Street
- Sullivan, Howard Cheseldene, Eng.; Maryland, Box 321, Mt. Rainier, Md.
- Summy, Ethel, T.C.; District of Columbia..... 1623 R Street
- Sutton, Raymond E., Eng.; Utah..... 1466 Rhode Island Avenue
- Swann, Theodore Magruder, C.C.; Virginia..... Clarendon, Va.
- Swartzell, Henry Rodley, C.C.; District of Columbia, 2117 Bancroft Pl.
- Taggart, Earl, C.C.; Iowa..... Y. M. C. A. Building
- Talcott, John J., Eng.; District of Columbia... 509 9th Street, S. E.

- Tallman, Henry William, C.C.; Michigan..... 150 Seaton Place, N. W.
 Tauberschmidt, John A., C.C.; District of Columbia, 922 Westminister
 Street
- Taylor, James Norman, C.C.; Delaware..... 1315 K Street
 Taylor, Marion Antoinette, C.C.; District of Columbia, 1007 Otis Place
 Taylor, Nellie Boyd, T.C.; District of Columbia.. 1753 Columbia Road
 Taylor, Olivia Alexander, C.C.; Virginia..... 519 21st Street
 Teal, Leon D. H., Eng.e.; New Jersey..... 216 Maryland Avenue
 Temple, Grace Lincoln, C.C.; District of Columbia..... The Farragut
 Tepper, Benjamin Lione, C.P.S.; New Jersey..... 1244 Evarts Street
 Terry, Leo Claude, C.C.; District of Columbia..... 1019 Lamont Street
 Tervisse, Anthony T., Eng.e.; Holland..... 718 7th Street, N. E.
 Thatcher, Arthur S., C.C.; Pennsylvania..... The Nancemond
 Thomas, Calvin Carroll, C.C.; Delaware..... 2101 F Street
 Thomas, Lisle, C.C.; Michigan..... 901 M Street
 Thompson, Harry Woodward, C.C.; Iowa..... 1340 Girard Street
 Thorne, Harold C., Eng.e.; Maryland..... Bureau of Standards
 Thornton, Smith Gordon, C.C.; Louisiana..... Senate Office Building
 Tibbitts, Russell D., C.C.; District of Columbia..... 3341 18th Street
 Tietig, Chester, C.C.; Ohio..... 1214 12th Street
 Tiffany, Emma Ruth, T.C.; District of Columbia... 3409 Brown Street
 Tilton, Fletcher Sandford, C.C.; District of Columbia, 2947 Tilden Street
 Timm, Minnie Emilie, C.C.; Washington..... 311 C Street
 Tomlin, Josephine M., C.C.; District of Columbia, 1011 B Street, N. E.
 Townsend, Robert Swan, C.C.; District of Columbia, 1447 Irving Street
 Townsend, Tyler H., Eng.e.; Texas 1611 Lincoln Avenue, N. E.
 Trowbridge, Agnes Cowgill, C.C.; District of Columbia. 1821 H Street
 Trumbower, Eli C., C.C.; Delaware..... 1736 G Street
 Truseott, Harry Alvin, C.P.S.; Kansas, Interstate Commerce Com-
 mission
- Tyndall, Mary Siphord, T.C.; District of Columbia..... 1008 I Street
 Ulrickson, Hilda Louise, C.C.; District of Columbia, 617 21st Street
 Underwood, Harriet, T.C.; District of Columbia..... 2551 37th Street
 Underwood, Mary Louise, T. C.; District of Columbia, 707 East Cap-
 itol Street
- Upton, William Bayly, Jr., Eng.; District of Columbia, 3420 Newark
 Street, Cleveland Park
- Urner, Ralph Marion, C.C.; District of Columbia, 40 C Street, N. E.
 Valaer, Peter, Jr., C.C.; District of Columbia, Bureau Internal Revenue;
 S.B., 1906, College of Agriculture and Mechanic Arts., North
 Carolina
- Van Kirk, Lloyd Howard, C.C.; Pennsylvania, 1845 Ingleside Terrace
 Van Loock, Albert M., Eng.; District of Columbia, 104 15th Street, N.E.
 Van Loock, Louis Anthony, Eng.; District of Columbia, 104 15th St. N. E.
 Varney, Forrest F., Eng.e.; Wisconsin..... 209 Y. M.C. A.
 Veazie, Henry Purcell, C.C.; District of Columbia, 1313 Harvard Street
 Vilkomirson, Herman W., Eng.; New York..... 923 M Street

- von Zielinski, Carl Maria Johann, C.P.S.; Germany..... 1706 F Street
 Vose, J. Raymond, C.C.; Kentucky..... 2018 F Street
 Wakefield, Walter Harold, Eng.e.; District of Columbia, 129 Maple Ave.
 Takoma Park, D. C.
 Walker, Alberta, T. C.; District of Columbia..... 1034 S Street
 Walker, Janet Gibson, C.C.; District of Columbia, 420 B Street, N. E.
 Wall, Adelaide Dorothy, C.C.; District of Columbia, 4009 14th Street
 Walter, Joseph Charles, C.C.; District of Columbia, 320 3d Street, N. E.
 Walters, Marion Irven, Eng.e.; District of Columbia, 3228 Warder Street
 Walton, Melville R., C.C.; District of Columbia, 816 Eye Street, N. E.
 Wanlass, William L., C.P.S.; Utah..... 2120 H Street
 Ward, Albert, C.C.; District of Columbia, 2811 12th Street, N. E.
 Ward, Ralph Porter, Eng.e.; District of Columbia, 1016 25th Street
 Waring, Grace Anna, C.C.; District of Columbia... 1423 Newton Street
 Warner, Harold Ellsworth, C.C.; District of Columbia, 1020 9th Street
 Watsky, Jack, C.C.; Virginia The Cumberland
 Webb, James William, Eng.; District of Columbia, 1314 E. Capitol Street
 Weber, Elizabeth, T.C.; Maryland..... Berwyn Heights, Md.
 Weber, John Augustus, Eng.; Pennsylvania..... 518 6th Street, N. E.
 Webster, Benjamin, Eng.; Connecticut 604 22d Street
 A.B.; 1907, Yale University
 Weeks, Albert E., Eng.; District of Columbia.... 332 Eye Street, S. W.
 Weinstein, Reuben, C.C.; New York..... 1914 Pennsylvania Avenue
 Wharton, Roger Daniel, Eng.e.; District of Columbia, 3411 Oakwood
 Terrace
 Whitaker, Norman T., C.P.S.; Pennsylvania..... 1105 K Street
 White, Mary Josephine, T.C.; Ohio, National Park Seminary, Forest
 Glen, Maryland
 Whitford, Bessie, T.C.; District of Columbia 3369 18th Street
 Wilbur, Elizabeth Sabrina, C.C.; District of Columbia, 2107 S Street
 Wilburn, Escol Simpson, C.C.; Virginia..... 922 New York Avenue
 Wilhelm, Robert Mason, C.C.; Maryland..... 1845 Calvert Street
 Wilkins, Laurence Ordway, C.P.S.; District of Columbia, The Con-
 gressional Apartment
 Williams, Robert Daniel, C.C.; Maryland, 2021 Lanvale Street, Bal-
 timore, Maryland; A.B.; A.M., Princeton University
 Wilson, Joseph H., Eng.m.; Pennsylvania..... 1733 17th Street
 Wilson, Margaret Posey, C.C.; District of Columbia, 219 First Street, N.E.
 Wingate, Charles Ludwell, C.P.S.; District of Columbia, 2423 18th Street
 Winn, Talmadge Swoll, C.C.; Georgia..... 2016 G Street
 A.B., 1907, University of Georgia
 Wong, Ung Ce, C.C.; China 1418 L Street
 Wood, Thurston Elmer, C.C.; New Jersey..... 2143 Y Street
 Woods, Frederick Davis, Eng.; Arkansas..... 402 M Street
 Woodward, Francis Albert, Eng.m.; District of Columbia, 2248 Ontario
 Road
 Worley, Nathaniel T., C.C.; District of Columbia..... 1040 W Street

Worley, Sarah Antoinette, C.C.; District of Columbia, 1440 W Street	
Worrell, Everill, C.C.; District of Columbia.....	1105 Clifton Street
Worster, Louise, T.C.; District of Columbia.....	942 B Street, S. W.
Wright, Marguerite Cecilia, C.C.; District of Columbia...	1103 P Street
Wu, Su-Ying Chiao, C.C.; China.....	2415 20th Street
Wu Ying, C.C.; China.....	2415 20th Street
Yoder, Bertha Alice, T.C.; District of Columbia, 144 11th Street, S. E.	
Yoder, Bessie Lee, T.C.; District of Columbia, 144 11th Street, S. E.	
Yost, Elsie May, C.C.; District of Columbia, 1002 Pennsylvania Avenue, S. E.	
Yost, William Edward, Eng.e.; District of Columbia, 1002 Pennsylvania Avenue, S. E.	
Young, Irene Ottillie, C.C.; Virginia.....	712 10th Street
Zapf, Lewis Roy, C.P.S.; Tennessee.....	836 Rittenhouse Street
A.B., 1906, De Pauw University	
Zinsameister, Grace Mary, T.C.; District of Columbia	
	1364 Girard Street
Zundell, Frank F. C.C.; Pennsylvania.....	War Department

SUMMARY

Graduate Students

Students in attendance.....	11	
Candidates for D.C.L. degree.....	1	
Candidates for C.E. degree.....	5	
Candidates for E.E. degree.....	3	
Candidates for S.M. degree.....	21	
Candidates for A.M. degree.....	27	
Candidates for Ph.D. degree.....	24	
Auditors.....	2	
	91	
Duplicates.....	2	92

Undergraduate Students

Columbian College

Candidates for A.B. degree.....	184
Candidates for S.B. degree.....	2
Candidates for B.S. in Chemistry degree.....	44
Special.....	120
Auditors.....	3
	353

College of Engineering and Mechanic Arts

Candidates for B.S. in Arch. degree.....	15
Candidates for B.S. in C.E. degree.....	51
Candidates for B.S. in E.E. degree.....	26
Candidates for B.S. in M.E. degree.....	24
Special.....	80
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	196

College of Political Sciences

Candidates for A.B. degree.....	27
Candidates for M.Dip. degree.....	2
Special.....	27
	<hr/>
	56

Teachers College

Candidates for A.B. and Teachers' Diploma.....	78
Candidates for Teacher's Diploma.....	1
Special.....	8
	<hr/>
	87

692

Duplicates	784
	<hr/>
	6
	<hr/>
	778

PROFESSIONAL DEPARTMENTS

DEPARTMENT OF LAW

First Year

Addison, John West; Virginia.....	Bureau of Corporations
A.B., 1905; A.M., 1906, Washington and Lee University	
Allanson, Henry E.; Iowa.....	Y. M. C. A.
The George Washington University	
Altman, Stanley B.; South Carolina.....	813 12th Street
University of South Carolina	
Anderson, Samuel Victor; Mississippi.....	345 House Office Building
Austin, Charles Morrison; Tennessee.....	Florence Court
Graduate, 1905, United States Naval Academy; University of Tennessee	
Bardwell, Halsey Warren; Vermont.....	2821 14th Street
Ph.B., 1910, Ewing College	
Bartholomew, Don C.; Ohio.....	1704 F Street
The George Washington University	

Bowman, Ralph Grantham; Indiana.....	Speedway Inn
Depauw University	
Branch, Hilarion Noel; Mexico.....	Mexican Embassy
Bratton, Leslie Emmett; Nebraska.....	Navy Department
Graduate, 1907, United States Naval Academy	
Brown, Lee Hoxie; District of Columbia.....	2464 Ontario Road
The George Washington University	
Bushnell, Paul; District of Columbia.....	1757 Church Street
The George Washington University	
Butterwick, Leonard L.; North Dakota.....	222 North Capitol Street
Church, Kortright; District of Columbia.....	1608 20th Street
A.B., 1912, Yale University	
Clark, Marion; Maryland.....	1321 N Street
A.B., 1901; A.M., 1904; Western Maryland University	
Claytor, Spry Owen; Ohio.....	1504 Columbia Road
Cornell, Herbert Watson; Colorado.....	Civil Service Commission
A.B., 1908, University of Colorado	
Crews, Chalsia E.; Missouri.....	1913 North Capitol Street
Davis, Ray Osborn; Virginia.....	507 Prince Street, Alexandria, Virginia
Diuguid, Garnett Bertrand; Virginia.....	2026 G Street
University of Virginia	
Donaldson, William Raymond; New York.....	1632 6th Street
Doughty, James Lloyd; Texas.....	1404 L Street
University of Texas	
Fickas, Melville, Philip; Arizona.....	1311 13th Street
The George Washington University	
Finckel, William Henry, Jr.; District of Columbia.....	1625 S Street
The George Washington University	
Frederick, Alfred Hardin; Texas.....	1345 Vermont Avenue
Garner, Alan Freeman; Virginia.....	1400 Chapin Street
Griggs, Elmer Vernon; Iowa.....	1814 G Street
B.S. in EE., 1908; B.M.E., 1909, Iowa State College	
Grover, Charles S.; Indiana.....	3616 Newark Street, Cleveland Park
B.S. in E.E., 1910, Purdue University	
Groves, George Summer; Virginia.....	R. F. D. No. 2, Alexandria, Va.
Virginia Polytechnic Institute	
Hamilton, Alexander Scott, Jr.; Virginia.....	1102 L Street
Hatch, Robert Harrison; Massachusetts.....	1400 Chapin Street
A.B., 1911, Dartmouth College	
Haugen, Lauritz G.; Iowa.....	Winston Hotel
University of Minnesota	
Haycraft, Everett Fairfield; Texas.....	36 Todd Place, N. E.
Healy, Joseph Edward; Virginia.....	1903 N Street
William and Mary College	
Henry, Ralph Dangerfield; Maryland.....	738 15th Street
The George Washington University	

- Henry, Tyler; Texas.....1825 19th Street
Austin College
- Hill, George Sydney; Massachusetts.....1432 M Street
The George Washington University
- Hillyer, Douglas; District of Columbia.....2021 Hillyer Place
- Hoffman, Henry B.; District of Columbia.....1120 7th Street, N. E.
- Hulsizer, Robert Inslee; Massachusetts.....1903 N Street
Massachusetts Institute of Technology
- James, Joseph Pierson; California.....1504 R Street
Leland Stanford University
- Jenks, Clayton Louis; New York, 3020 Macomb Street, Cleveland Park.
A.B., 1906, S.M., 1909 Hamilton College
- Jensen, Julius Christian; Iowa.....1343 L Street
State University of Iowa
- Johnson, Ross Holbrook; District of Columbia....1804 Belmont Road
The George Washington University
- Jones, Shirley Penrose; Utah31 B Street
- Keats, Harold; District of Columbia.....1304 Fairmont Street
A.B., 1912, The George Washington University
- Kelly, William F., Jr.; District of Columbia.....2117 Flagler Place
The George Washington University
- Kirster, Frank J.; Michigan.....1219 K Street
University of Michigan
- Knight, Oliver Drake; Wisconsin.....1709 17th Street
University of Wisconsin
- Kuntz, Herbert Oscar; Pennsylvania2715 13th Street
- LeFebvre, Clarence Charles; Wisconsin.....Bureau of Chemistry
A.B., 1907, University of Wisconsin
- Lindsay, Alfred Briscoe; District of Columbia.....2550 14th Street
The George Washington University
- Lynn, Rodney Lake; Virginia.....1100 Vermont Avenue
- Lyon, John; Virginia.....504 Southern Building
University of Virginia
- McFall, John Monteith; South Carolina.....1012 11th Street
A.B., 1904, College of Charleston; A.M., 1906, Columbia Uni-
versity
- Mankowski, John S.; New Jersey.....2006 F Street
- Manning, Ellis Wooster; Oklahoma.....1012 I Street
- Maréchal, Greer McInnis, Alabama.....1307 R Street
A.B., 1908, University of Alabama
- Mehl, Charles Herman; Michigan.....1830 G Street
- Merritt, Robert. G.; New York.....Forest Service
B.F., 1912, Biltmore Forest School; United States Naval Academy
- Milmore, Oscar Longfellow; New York.....1713 Corcoran Street
A.M., 1912, Columbia University
- Miltenberger, William Fernand; District of Columbia.....1738 M Street
Georgetown College, University of Paris

- Mozingo, Harley I.; Colorado.....1830 G Street
 Mulligan, William Miles; District of Columbia.....3105 11th Street
 The George Washington University
 Negley, Noel A.; Nebraska.....Y. M. C. A.
 A.B., 1912, University of Nebraska
 O'Harra, Stanford Leland; Ohio.....909 C Street, N. E.
 Osborn, Clarence C.; South Dakota.....510 C Street, N. E.
 Paine, John Gregg; Pennsylvania.....3746 McKinley Street
 A.B., 1909, Wesleyan University
 Parmelee, Earl Linsley; Pennsylvania.....3308 14th Street
 Peynado, Francisco J.; Dominican Republic.....1532 22d Street
 Normal School of Santo Domingo. Professional Institute of
 Santo Domingo
 Pierce, Herbert Robbe; Vermont.....Senate Post Office
 S.B., 1910, University of Vermont
 Pierce, James Francis; Michigan.....Patent Office
 B.C.E., 1912, University of Michigan
 Potter, Charles Hollister; North Carolina.....918 F Street
 The George Washington University
 Pratt, Philip Rogers; District of Columbia.....2015 Columbia Road
 University of Virginia
 Primm, Paul Hastings; District of Columbia, 720 Lawrence Street, N. E.
 Reavis, Newton C.; Tennessee.....1903 N Street
 Vanderbilt University
 Reese, Francis Sydney; Maryland.....1736 G Street
 The George Washington University
 Reinhardt, John Joy; Nebraska.....1717 S Street
 The George Washington University
 Rini, Vitus Michael; New York.....1355 Maryland Avenue, N. E.
 Rogers, George C.; New York.....1755 Lamont Street
 Rogers, James Cunningham; District of Columbia.....3546 13th Street
 University of Pittsburg
 Roper, Daniel Calhoun, Jr.; South Carolina, 816 Massachusetts Ave. N.E.
 Sanborn, George Allen; Wisconsin.....925 Rhode Island Avenue
 A.B., 1912, The George Washington University
 Schenck, Arthur C.; District of Columbia.....514 Kenyon Street
 Schmied, James William; Ohio.....1117 Euclid Street
 S.B., 1910, Ohio Northern University
 Shaw, Randolph Codman; District of Columbia.....The Hawarden
 Washington and Lee University
 Shepard, William Wallace; California.....129 Maryland Avenue, N. E.
 Smith, Breedlove; Texas.....2106 R Street
 A.B., 1912, Austin College
 Smith, Henry Charles Albert; Ohio.....1008 I Street
 Heidelberg University, Tiffin, Ohio
 Smith, Howard Burton; Nebraska.....216 4th Street, S. E.
 Smith, Robert William; District of Columbia.....1418 Allison Street

- Spare, Romeyn Andrew; Massachusetts.....Patent Office
A.B., 1908, Harvard University
- Sprague, Clarence Andrew; District of Columbia, 1940 2d Street N. E.
S.B., 1904, Syracuse University
- Springs, Laertes Pittman; District of Columbia.....1945 Calvert Street
- Stackhouse, George Milton; South Carolina.....Hotel Gordon
S.B., 1894, Citadel Military College. LL.B., 1898, Georgetown
University.
- Stanley, Elton Wood; South Dakota.....1730 M Street
University of Wisconsin
- Stevens, Arthur E.; Missouri.....2028 G Street
- Stewart, Elmer; District of Columbia.....1812 Lamont Street
B.S., in Chemistry, 1912, The George Washington University
- Stoddard, Alfred L.; Iowa.....1709 17th Street
University of Wisconsin
- Stone, Jesse Raymond; Wisconsin.....1821 Corcoran Street
B.Litt., 1899, University of Wisconsin
- Thompson, Alfred Wright; District of Columbia..1304 Fairmont Street
The George Washington University
- Thurman, Samuel D.; Utah.....Interstate Commerce Commission
University of Utah
- Trudgian, Andrew Beers; West Virginia.....603 Columbia Road
University of Pennsylvania
- Vaughn, Orville R.; Tennessee.....1008 I Street
- Wadsworth, John Thaddeus; Maine.....1505 Vermont Avenue
A.B., 1909, Bates College
- Whitehorn, Homer A.; Nebraska.....1814 Park Road
A.B., 1908, Nebraska Wesleyan University
- Wilson, Laurance Norton; Idaho.....1502 Vermont Avenue
The George Washington University
- Winn, Talmadge S.; District of Columbia.....2016 G Street
A.B., 1907, University of Georgia
- Witter, Lawrie L.; New York.....Patent Office
- Woolley, Herbert Elliott; Utah.....Forest Service
- Wright, Charles William; Virginia.....429 Senate Office Building
University of Virginia
- Wright, Clarence Edward; Utah.....215 New Jersey Avenue
Agricultural College of Utah
- Yost, William Edward; District of Columbia, 1002 Pennsylvania Avenue
The George Washington University

Second Year

- Acker, Harold Knowles; District of Columbia.....913 16th Street
Lafayette College
- Anderson, Paul; Illinois.....The Portsmouth
- Barr, John Lester; District of Columbia.....The Wyoming
A.B., 1910, Harvard University

- Barton, Walter Elbert; Idaho.....1502 Vermont Avenue
University of Colorado
- Baumgartner, Edgar Foster; New Jersey.....The Champlain
M.E., 1911, Lehigh University
- Bisson, Louis Alfred; Massachusetts.....301J Georgia Avenue
Worcester Polytechnic Institute
- Black, Henry George Atkinson; Massachusetts, 636 Rock Creek Church
Road. Massachusetts Institute of Technology
- Borland, Paul Raymond; Pennsylvania.....1903 N Street
A.B., 1910, Washington and Jefferson College
- Chamberlin, Arthur Newell; Vermont.....1903 N Street
- Clark, Bennett Champ; Missouri.....1509 16th Street
University of Missouri
- Clark, Merrell Edward; New York.....1860 Columbia Road
M.E., 1911, Cornell University
- Cox, John Dee; Texas.....4300 Kansas Avenue
Southwestern University
- Crane, Alpheus Jennings; District of Columbia, 2930 Thayer Street, N. E.
B.S., in E.E., 1903, Purdue University
- Cumpston, Edward Henry, Jr.; Virginia.....1613 30th Street
M. E., 1909, Cornell University
- Elkins, Harry Scott; South Dakota.....1502 Vermont Avenue
- Enlows, Harold Franklin; Illinois.....1017 12th Street
- Evans, Budd; Minnesota.....1021 Kenyon Street
- Fauntleroy, John Smith Young; Louisiana.....Senate Office Building
A.B., 1905, Louisiana State University.
- Fitch, William Reed; North Dakota.....413 Y. M. C. A.
The George Washington University.
- Fletcher, Frederick Dix; Washington.....Y. M. C. A.
University of Kansas.
- Fraizer, Cecil C.; Indiana.....1412 Euclid Street
University of Pennsylvania.
- French, Louis Osborne; Wisconsin.....1903 N Street
S.B., 1910, Massachusetts Institute of Technology.
- Freyer, Frank Barrows; District of Columbia.....Navy Department
Graduate, United States Naval Academy; Georgia School of
Technology.
- Galloway, Andrew Barritt; Oklahoma.....1100 Vermont Avenue
- Greenberg, Louis; District of Columbia.....612 N Street
The George Washington University.
- Greene, James Woodall; Maryland.....1517 P Street
- Hall, Bartow Harwood; Colorado.....U. S. Senate Office Building
A.B., 1910, Amherst College.
- Handy, William Upshur; District of Columbia.....23 8th Street S. E.
- Howard, Frank Atherton; Illinois.....1733 R Street
B.S., in M.E., 1911, The George Washington University.
- Ingraham, James Allen; Oklahoma.....1303 R Street

- Isom, James Rudolph; Arkansas.....1100 Vermont Avenue
University of Arkansas.
- Johnson, Arthur Chilion; Colorado.....901 20th Street
University of Colorado.
- Jones, Carl Curtis; Maine.....348 Senate Office Building
- LaFollette, William LeRoy, Jr.; Washington.....1865 California Street
State College of Washington.
- Landers, Maurice Birdsall; New York.....1489 Newton Street
A.B., 1903, Hamilton College; S.B., 1905, Massachusetts Insti-
tute of Technology.
- Laylin, Lewis F.; Ohio.....The Portland
A.B., 1912, Ohio State University.
- McCawley, Harrison Byington; Iowa.....1432 M Street
A.B., 1910, Drake University.
- Maddox, Coburn Fletcher; Montana.....Florence Court
- Meckley, Robert Byers; Pennsylvania.....1400 Chapin Street
B.S. in E.E., 1908, Pennsylvania State College.
- Morse, Robert Virgil; New York.....1768 Columbia Road
M. E., 1911, Cornell University.
- Neibling, Harold Edmund; Nebraska.....2129 F Street
A.B., 1912, Cotner University.
- Nellis, William Lyons; Ohio.....Y. M. C. A.
Ohio Wesleyan University.
- Oldsen, Carl H.; Iowa.....717 10th Street
- Read, Raymond Edgar; Massachusetts.....203 The Dunsmire
- Rice, Willis Ballance; New York.....1647 Lamont Street
M.E., 1907, Cornell University.
- Rubenstein, Samuel; New York.....1230 11th Street
- Sanders, Harold Benthall; Mississippi.....332 E Street N. E.
S.B., 1910, Mississippi Agricultural and Mechanical College.
- Savage, Henry J.; Michigan.....1227 Girard Street N E.
B.S. in E.E., 1908, University of Michigan.
- Schaeffer, Harrold Christian; District of Columbia.....1843 R Street
- Schantz, Leroy Christian; Iowa.....Y. M. C. A.
B.S. in E.E., 1908, Iowa State College.
- Scheffer, Joseph Walter; Connecticut.....1717 S Street
- Simpson, Archer Roberts; Connecticut.....1903 N Street
A.B., 1911, Yale University.
- Spahr, Neal Bradford; Tennessee.....921 I Street
A.B., 1911, University of Chattanooga.
- Stafford, Edward; District of Columbia.....1725 Lamont Street
A.B., 1911, Dartmouth College.
- Stevenson, Charles Stanley; Kansas.....921 O Street
Washburn College.
- Stone, James Austin; District of Columbia.....1618 Rhode Island Avenue
A.B., 1910 Swarthmore College.

- Symons, Thomas William, Jr.; District of Columbia,
1606 New Hampshire Avenue
A.B., 1911, Yale University.
- Tanner, Marion Snow; Utah.....1502 Vermont Avenue
A.B., 1911, University of Utah.
- Van Wagoner, John D.; Utah.....Y. M. C. A.
Utah Agricultural College.
- Weikert, Edward Wilford; Pennsylvania.....Patent Office
Ph.B., 1906, Brown University.
- White, Joseph Curtis; Maine.....320 Maryland Avenue N. E.
A.B., 1911, Bowdoin College.
- Wolfe, Edmund Stanley; Maryland.....District National Bank
The George Washington University.
- Woodson, Walter Browne; Virginia.....Navy Department
Graduate, 1905, Postgraduate, 1907, United States Naval
Academy.
- Wright, Ulysses Wayne; Illinois.....1307 R Street
A.B., 1911, Illinois College
- Young, Earl; Minnesota.....1213 H Street

*Third Year

- Alexander, William Morrison; District of Columbia.....1711 Q Street
Williams College.
- Barlow, Frank Augustus; Minnesota.....1717 S Street
A.B., 1910, University of Minnesota.
- Bickel, Harvey Cleveland; Pennsylvania.....Y. M. C. A.
Bond, Eugene Webster; Illinois.....902 F Street
The George Washington University.
- Bower, Frank Albert; New York.....2627 Adams Mill Road
M.E., 1910, Cornell University.
- Brookes, John St. Clair, Jr.; District of Columbia,
1525 Corcoran Street
A.B., 1907; A.M., 1910, The George Washington University.
- Buck, George Burton; Maryland,
Economy and Efficiency Commission, White House
- Cobb, Victor; Virginia.....Patent Office
S.B., 1908, Harvard University.
- Cordon, Alfred C.; Idaho.....No. 7, Ventosa Apartments
University of Utah.
- Coumbe, Edward Celestine; Washington.....1502 Vermont Avenue
Colorado State Agricultural College.
- Creekmore, Thomas Leonidas; Virginia.....1502 Vermont Avenue
William and Mary College.
- Daniel, Robert Todd; District of Columbia.....3000 Q Street

* Includes fourth year candidates for LL.B.

- Davis, Max Warburton; Connecticut.....2518 17th Street
M.E., 1908, Cornell University.
- Davis, Myron Mathews; Maine.....Patent Office
S.B., 1909, Massachusetts Institute of Technology.
- Deibert, Arthur Hannum; District of Columbia...1411 Harvard Street
- Denning, William Ira; Georgia.....4127 9th Street
The George Washington University.
- Des Jardins, Clarence Bigelow; Michigan.....1402 L Street
A.B., 1909, Kalamazoo College.
- DeWolf, Richard Crosby; Massachusetts.....Library of Congress
Massachusetts Institute of Technology.
- Diener, John Astor; Indiana.....1903 N Street
B.S. in E.E., 1910, Purdue University.
- Dunham, Harry E.; New York.....1664 Columbia Road
E.E., 1906, Syracuse University.
- Dutton, Clarence Benjamin; Massachusetts.....1331 Belmont Street
B.L., 1911, The George Washington University.
- Eickhoff, Theodore Henry; Indiana.....1511 16th Street
B.S. in E.E., 1908, Purdue University.
- Fehr, J. Ralph; Illinois.....Patent Office
The George Washington University.
- Feldman, Peter Royal; Wisconsin.....Navy Department
The George Washington University.
- Finley, David Edward, Jr.; South Carolina...1219 Connecticut Avenue
A.B., 1910, University of South Carolina.
- Gerard, Charles Wesley; District of Columbia.....2212 Flagler Place
A.B., 1906, Ohio State University.
- Gibbon, Charles Hugh; Wisconsin.....21 The Arkwright
University of Wisconsin.
- Guptill, Leon Clifton; Maine.....21 1st Street N .E.
A.B., 1909, Colby College; B.L., 1912, The George Washington
University.
- Harding, Harvey Almon; Nebraska.....1739 Park Road
Northwestern University.
- Hawley, Charles Taft; Massachusetts.....Patent Office
S.B., 1898; M.E., 1908, Worcester Polytechnic Institute.
- Hawley, Luther W.; Vermont.....Patent Office
S.B., 1908, Worcester Polytechnic Institute.
- Henderson, Robert; District of Columbia.....1601 23d Street
Graduate, 1902, United States Naval Academy.
- Hinton, Sebastian; District of Columbia.....818 17th Street
A.B., 1909, Princeton University.
- Hubbard, Elliott S.; New York.....Government Printing Office
- Hunter, William Boyd; Nebraska.....Bureau of Corporations
S.B., 1897; A.M., 1898, University of Nebraska.
- Jackson, Edwin Roy; Iowa.....2106 F Street
S.B., 1904, State University of Iowa.

- Jeffrey, Frank Rumer; Washington.....1502 Vermont Avenue
The George Washington University.
- Kause, Arthur John; District of Columbia....1905 Jackson Street N. E.
- Kennedy, George Henry, Jr.; District of Columbia,
1224 Massachusetts Avenue
B.S., in M.E., University of Pennsylvania.
- Klein, Raphael S.; Colorado.....The Plymouth
- Knowlton, Morris Willson; Maine. 302 Eastern Avenue, Takoma Park
- Krogstad, Robert Bacon; District of Columbia.....1524 K Street
Cornell University.
- Kunkel, Frederick Eugene; Pennsylvania.....1717 S Street
- Larson, William Ludwig; South Dakota.....1903 N Street
- Larazus, I. Burt; Massachusetts.....2026 F Street
- Lillie, Ray Dudley; Michigan.....1329 New York Avenue
A.B., 1904, University of Michigan.
- Mapes, Carl Anthony; Michigan.....419 District Building
- Miller, Lawrence A. Gale; Massachusetts.....Patent Office
A.B., 1908, Harvard University.
- Moore, James Ballard; District of Columbia.....1869 Columbia Road
- Moore, Maurice Malcolm; Michigan.....1869 Columbia Road
The George Washington University.
- Moore, Rawles; Kentucky.....1903 N Street
- Morrison, William Lester; Massachusetts.....The Dudley
The George Washington University.
- Munden, Ralph; Pennsylvania.....Patent Office
M.E., 1906, Cornell University.
- Neuhauser, Roy Lyman; District of Columbia.....1707 21st Street
A.B., 1909, The George Washington University.
- Oberlin, John Jay; Maryland.....Patent Office
A.B., 1901, Washington and Lee University.
- Ogilby, Charles F. Randolph, Jr.; District of Columbia..1416 F Street
- Otto, Arnold Clarence; Wisconsin.....1723 S Street
A.B., 1911, Lawrence College; A.B., 1911, The George Washing-
ton University.
- Packard, Roscoe Milliken; District of Columbia.....Patent Office
A.B., 1899; A.M., 1900, Western Reserve University.
- Paddock, William Waterman; Iowa.....205 The Sherman
- Phillips, Charles K.; New Jersey.....1627 Lamont Street
A.B., 1909, Princeton University.
- Preston, Neil De Forest; New York.....1828 California Street
M.E., 1908, Cornell University.
- Roller, Harry F.; Kansas.....1201 Q Street
A.B., 1906, University of Kansas.
- Rose, Claude Custer; Ohio.....115 R Street N. E.
M.E., 1905, Ohio State University.
- Rowland, Guy Edwin; Texas.....1483 Newton Street
- Rush, Clifford Alvin; Kansas.....1517 P Street

- Samsel, Albert Charles; Tennessee.....11 Grant Place
A.B., 1910 Maryville College.
- Schnare, Lester Llewellyn; Georgia.....The Akron
- Shaw, Paul James; Pennsylvania.....Y. M. C. A.
- Smith, Charles Watson; Pennsylvania.....315 H Street
University of Chicago.
- Smith, Frank Brown; Maryland.....817 12th Street
- Smith, Frank Seymour; District of Columbia.....1631 16th Street
A.B., 1910, Wesleyan University.
- Stottle, Burr Shearer; Missouri.....Y. M. C. A.
- Straw, Charles Alonzo, Jr.; Massachusetts.....3014 Dent Place
A.B., 1901, Harvard University.
- Strong, William, Jr.; District of Columbia.....1208 18th Street
Princeton University.
- Stuart, Ralph Richard; Iowa.....3000 Q Street
University of Iowa.
- Sutton, Loyd Hall; Massachusetts.....1323 Clifton Street
S.B., 1903, Massachusetts Institute of Technology.
- Tolbert, James Ora; Iowa.....Y. M. C. A.
- Townsend, Wilson Lewis; Maryland.....1429 New York Avenue
- Walker, Clarence Stevens; Massachusetts.....Patent Office
A.B., 1904, Harvard University.
- Walker, John Earl; Michigan.....1402 L Street
S.B., 1907, Kalamazoo College; S.B., 1907, University of Chicago.
- Waters, Joseph H.; District of Columbia.....623 Kiefer Place
B.S., in E.E., 1910, The George Washington University.
- Watson, Paul Herbert; Kansas.....1322 Kearney Street N. E.
Patent Office
- Wenderoth, Ernest Ferdinand; New York.....
B.S. in E.E., 1910 The George Washington University.
- White, Hubert Shadrach; Virginia.....1123 6th Street
Eastern College.
- Wilson, Irving Thomas; Maryland.....504 Southern Building
The George Washington University.
- Woodman, William Hidden; New Jersey.....1432 M Street
S.B., 1908, Dartmouth College.
- Zacharias, Robert Mathias; Pennsylvania.....1717 S Street
A.B., 1907, Franklin and Marshall College.
- Zeh, Henry William; District of Columbia.....1357 Harvard Street
- Zirkle, Joseph Claiborne; Virginia.....635 F Street
The George Washington University.

MASTER OF LAWS

- DeAtley, Harry B.; Kentucky.....513 6th Street
LL.B., 1912, Kentucky State University.
- Cohen, George G.; Indiana.....211 C Street
A.B., 1907; LL.B., 1907, Indiana University; M.Dip., 1912,
The George Washington University.

- Kause, Arthur John; District of Columbia...1905 Jackson Street N. E.
LL.B., 1913, The George Washington University.
Macfarland, Horace Greeley; District of Columbia.... Evans Building
Graduate, 1891, United States Naval Academy; LL.B., 1912,
The George Washington University.
Teodoro, Anastasio R.; Philippine Islands.....31 Raymond Apartment
A.B., 1908, Ateneo de Manila; LL.B., 1911, Escuela de Derecho
de Manila.

REVIEW STUDENTS

- Irion, Harry; Colorado.....131 A Street N. E.
LL.B., 1907, The George Washington University.

SPECIAL STUDENTS

- Acker, Isaac Preston; Virginia.....2812 13th Street
Black, James Earl; New York.....1225 O Street
The George Washington University.
Callander, William Forrest; Illinois.....4129 9th Street
LL.B., 1912, Georgetown University.
Davis, Meyer; District of Columbia.....1200 Morse Street N. E.
Dow, William John; Missouri.....2020 North Capitol Street
Fall, Jack Morgan; New Mexico.....127 Senate Office Building
Fisher, David; New York.....1108 Columbia Road
Forbes, Harvey Dwight; New York.....1430 V Street
Halls, Jay Clarence; Wisconsin.....440 House Office Building
The George Washington University.
Hemrich, Ernest Edward; Washington.....715-17 10th Street
Humphreys, William Yerger; Mississippi..... House Document Room
Johnston, Thomas Henry; Virginia.....635 F Street
Koss, Claude E.; District of Columbia.....457 Luray Place
Phar.D., 1907, The George Washington University.
Lewis, Horace H.; Washington.....1013 H Street
Lyons, Lester Harry; Louisiana.....73 The Toronto
McCurdy, Walter Morrison; West Virginia.....128 Bryant Street
Merchant, Ernest Howard; Massachusetts.....2164 Florida Avenue
LL.B., 1912, National University.
Morgan, William Harper; Alabama.....1432 M Street
Pagan, Robert; District of Columbia.....1965 Biltmore Street
Pfecher, Dalton Jefferson; District of Columbia.....216 G Street
Rust, Breckinridge Cabell; District of Columbia..... McGill Building
Schnare, Lester Llewellyn; Georgia..... The Akron Apartments
LL.B. February, 1913, The George Washington University.
Sexton, Paul L.; Virginia.....1311 P Street
Shaw, Paul James; Pennsylvania.....Y. M. C. A.
LL.B., February, 1913 The George Washington University.
Shawn, Franklin Denwood; Pennsylvania..... War Department
Shepherd, Alfred William; Idaho..... Brunswick Apartments

Siegfried, Alvin; South Dakota.....	1415 K Street
Sinclair, Beverly Kennon; Virginia.....	1822 I Street
Smith, George Walter; Pennsylvania.....	103 The Wellington
Smith, Waldorf Astor; Louisiana.....	513 H Street
Squair, Frank Roddie; Illinois.....	1615 Swann Street
LL.B., 1912, National University.....	
Stone, Frederic N.; Massachusetts.....	Y. M. C. A.
LL.B., 1912; M.P.L., 1912, Georgetown University.....	
Stuart, G. Forrest; Idaho.....	1340 Girard Street
Williams, Ashton Hilliard; South Carolina.....	10 B Street N. E.
A.B., 1912, University of South Carolina.....	
Willis, George Bullock; Virginia.....	R. F. D. 3, Alexandria, Va.
Wilmer, Joseph Allison; Maryland.....	3006 Cambridge Place
Wilmeth, John F.; District of Columbia.....	618 F Street N. E.
LL.B., 1912, Georgetown University.....	
Winkelhaus, William August; Illinois.....	4126 8th Street
Withers, Clyde Forrest; District of Columbia.....	3521 14th Street
Woolley, Arthur; Utah.....	Brunswick Apartments
Wright, Walter Rodney; Missouri.....	218 9th Street N. E.
Zapf, L. Roy; Tennessee.....	836 Rittenhouse Street
LL.B., 1912, Georgetown University.....	
Zeh, Henry William; District of Columbia.....	1357 Harvard Street
LL.B., 1912, The George Washington University.....	

AUDITORS

Kirster, Frank J.; Michigan.....	1219 K Street
University of Michigan.....	
Pagan, Robert; District of Columbia.....	1965 Biltmore Street
Sexton, Paul L.; Virginia.....	1311 P Street

SUMMARY

Candidates for LL.B. Degree.....	
First year.....	113
Second year.....	65
Third year.....	89
Total.....	267
Candidates for LL.M. Degree.....	5
Special.....	43
Review.....	1
Auditors.....	3
	319
Duplicates.....	7
Total.....	312

COLLEGE GRADUATES CANDIDATES FOR DEGREES

Alabama, University of.....	1	Michigan, University of.....	2
Amherst College.....	1	Minnesota, University of.....	1
Ateneo de Manila.....	1	Mississippi Agricultural and	
Austin College.....	1	Mechanical College.....	1
Bates College.....	1	University of Nebraska.....	2
Biltmore Forest School.....	1	Nebraska Wesleyan University	1
Bowdoin College.....	1	Ohio Northern University....	1
Brown University.....	1	Ohio State University.....	3
Charleston, College of.....	1	Pennsylvania State College..	1
Chattanooga, University of..	1	Pennsylvania, University of..	1
Chicago, University of.....	1	Princeton University.....	2
Colby College.....	1	Purdue University.....	4
Colorado, University of.....	1	South Carolina, University of	2
Columbia University.....	2	Swarthmore College.....	1
Cornell University.....	8	Syracuse University.....	2
Cotner University.....	1	United States Naval Academy	7
Dartmouth College.....	3	Utah, University of.....	2
Drake University.....	1	Vermont, University of.....	1
Ewing College.....	1	Wisconsin, University of.....	1
Franklin and Marshall College	1	Washington and Jefferson Col-	
George Washington Univer-		lege.....	1
sity, The.....	12	Washington and Lee Univer-	
Georgia, University of.....	1	sity.....	2
Hamilton College.....	2	Wesleyan University.....	2
Harvard University.....	6	Western Maryland University	1
Illinois College.....	1	Western Reserve University..	1
Indiana University.....	1	Worcester Polytechnic Insti-	
Iowa State College.....	2	tute.....	2
Iowa, State University of....	1	Yale University.....	3
Kalamazoo College.....	2		
Kansas, University of.....	1	Total.....	115
Lawrence College.....	1	Counted twice.....	6
Lehigh University.....	1		
Louisiana State University...	1	Total.....	109
Maryville College.....	1	Candidates for Degrees.....	270
Massachusetts Institute of		Percentage.....	40.3
Technology.....	4		

DEPARTMENT OF MEDICINE

CANDIDATES FOR THE DEGREE OF DOCTOR OF MEDICINE

First Year

*Bair, Schafer Bowers, Phar.D.; Maryland.....	1006 I Street
Bolton, Boyce Richardson; District of Columbia.....	3104 P Street
Brin, Carlos N.; Panama.....	1903 S Street

* Not in attendance throughout the year.

Catzeva, Morris; Russia.....	235 F Street N. E.
Collins, Robert Hugh; Virginia.....	Fort Myer Heights, Va.
Conaway, Austin Ottis; West Virginia.....	911 M Street
Connor, Jack Anthony; District of Columbia.....	2227 1st Street
Cousins, Sidney Charles; District of Columbia..	550 14th Street S. E.
Elmore, Henry Gibson; District of Columbia.....	2006 Columbia Road
Fitzhugh, Clark Seals; District of Columbia.....	124 12th Street S. E.
*Flood, Edward Michael; New Jersey.....	1214 12th Street
Folsom, John Eugene; Montana.....	1422 H Street
Garnsey, Orace Betts; Massachusetts.....	924 Massachusetts Avenue
Gordon, Robert John; Wisconsin.....	1121 I Street
Guilhempe, Nemorin; France.....	925 12th Street
*Graf, Frederick M.; Indiana.....	3022 R Street
Grayson, Stewart Maxwell; Virginia.....	Vienna, Va., R. 2
Haskell, Roy Terry; Maryland.....	808 New Jersey Avenue
Huddleston, Jarrett Mathew; District of Columbia..	2504 Hall Place
Katz, Albert; New York.....	224 H Street
Ladd, John Morriss; District of Columbia.....	134 11th Street S. E.
Levy, Edward; New York.....	1322 10th Street
Lynch, Joseph Aloysius, New York.....	905 13th Street
Macon, Edward Bailey, Phar.D.; District of Columbia..	1227 O Street
*McKinley, Henry S.; District of Columbia.....	214 2d Street N. E.
McNally, Thomas Henry, Jr.; Rhode Island.....	717 10th Street
Norton, William Harrison, Phar.D.; New York, 932 Westminster Street	
Northrup, Lewis V., Jr.; New York.....	610 L Street N. E.
Quirk, Jerome Thurston; Virginia.....	1307 R Street
Reuter, Fritz August; District of Columbia.....	1337 Park Road
Rice, Eugene Clarence, Jr.; District of Columbia....	4832 16th Street
Rivera, Pedro Aponte; Porto Rico.....	501 New Jersey Avenue
Rivera, Rafael Aulet; Porto Rico.....	11 Grant Place
Rosenberg, Louis Charles; Connecticut.....	1237 7th Street
Ryan, Frank Kevan; New York.....	1214 12th Street
Schoenfeld, Herbert Herman; District of Columbia ..	3448 34th Place
Simpson, Raymond Cornwell; District of Columbia,	
	123 Maryland Avenue N.E.
Stachniewicz, Vincent J.; New Jersey.....	2634 Woodley Place
Stratton, Ernest Kenneth, Phar.D.; Pennsylvania,	
	Tuberculosis Hospital
Taylor, Sterling Price, Jr.; Maryland, ..	1240 Pennsylvania Avenue S. E.
Thyson Lee Cromwell, Phar.D.; District of Columbia,	
	1366 Columbia Road
Tilton, Joel Adams, Jr.; District of Columbia.....	1520 29th Street
Walton, Robert R.; Washington	
	George Washington University Hospital
White, Paul Amos, B.S., Ph.B.; Iowa.....	Ventosa Apartment

* Not in attendance throughout the year.

*Witten, Louis J.; New York.....George Washington University
Yarnall, Audra Hopkins; Pennsylvania.....425 9th Street N. E.

Second Year

Bingman, Carroll E.; Pennsylvania 601 M Street
Bost, Thomas Creasy; North Carolina..... 942 K Street
Bradley, Jeter Carroll; North Carolina..... 1002 11th Street
Chamberlin, Frank Tenny, Jr.; District of Columbia..... 1323 M Street
Collins, James Harold; Maine..... 1435 9th Street
Craig, Ernest Arthur; Illinois..... 1228 Massachusetts Avenue
Donn, Frederick Y., Ph.D., Ph.C.; District of Columbia,
1544 New Jersey Avenue
Gentzkow, Cleon Joseph; Minnesota Garfield Hospital
Green, Eric Steel; New York..... 1009 13th Street
Horn, John W., Jr.; Pennsylvania..... 942 K Street
Kenner, Albert Walton, Ph.D.; District of Columbia 1711 17th Street
McCray, Arthur Howard, B.S.C., D.V.M.; Ohio, 1322 Vermont Avenue
Moser, Harry Newton, West Virginia..... 425 9th Street N. E.
Peters, David B.; Virginia Government Hospital for Insane
Putzki, Paul Stirling; District of Columbia..... 1862 California Street
Pullen, George W., Jr.; Maine..... 1435 9th Street
Rowlson, Ira Alonzo; New York..... Garfield Memorial Hospital
Shetter, Andrew George; Pennsylvania..... 1307 R Street
Williams, V. Blackstone; District of Columbia..... 1605 30th Street
Woodward Roy B.; New York 1435 9th Street

Third Year

Aston, Melville Joseph; Pennsylvania 1101 K Street
Barger, Gervase J. P.; Nebraska..... 2224 Decatur Place
Baynes, Ralph Henry; North Carolina..... 926 K Street
Bloom, Rudolph; Virginia..... 458 K Street
Brown, Edward A., Jr.; New York..... 929 K Street
Cohen, Ralph; District of Columbia..... 617 K Street
*Dembrosky, William L.; District of Columbia..... 708 H Street N. E.
English, Merton Alden; District of Columbia..... 1758 Park Road
Field, Fay; Pennsylvania..... Children's Hospital
Hardstaff, Roy John; Illinois..... 1322 Vermont Avenue
Harrison, Forrest M.; Virginia..... 818 A Street S. E.
Jones, Floyd Burton; California..... 1210 12th Street
Jova, Andrew Martin; Cuba..... 925 12th Street
Lonsdorf, Jacob J., Jr.; Pennsylvania..... 1215 K Street
Moreno, Joseph deRoulhac; Florida..... 1219 K Street
Miller, Thomas, Jr.; District of Columbia..... 1616 7th Street
Passer, William Frederick, Ph.C.; Minnesota..... Children's Hospital

* Not in attendance throughout the year.

Pitkowitz, Bernard B.; New York.....	1541 M Street
*Robinson, George; New Hampshire.....	823 13th Street
*Stapleton, William Pierce; New Jersey..	George Washington University
Rafter, Robert Read; District of Columbia.....	3105 16th Street
Supplee, Eugene Deyerle; District of Columbia...	311 A Street N. E.
Sze, Tsannyoen Philip; China.....	2750 14th Street
Taylor, Chase; District of Columbia.....	1433 Belmont Street
VanOrnam, Vilas G.; New York.....	1208 K Street
*Wenzell, Albert Gould; District of Columbia.....	1712 17th Street

Fourth Year

Corbett, Sewall Munson; Virginia	Tuberculosis Hospital
DeSaussure, Richard Laureno; South Carolina, Homeopathic Hospital	
English, Leonard H.; Pennsylvania.....	Garfield Hospital
Fortier, Roy MacLeay; California.....	2310 19th Street
Henneberger, Josiah Baker; Maryland.....	1101 K Street
Lott, Walter Harold; District of Columbia.....	1101 K Street
Mooers, Harold Alonzo; District of Columbia...	Takoma Park, D. C.
Regan, Louis John; New York.....	1208 K Street
Riley, Albert Austin; Ohio.....	1375 Columbia Road
Stout, Joseph Duerson, A.B.; District of Columbia ..	1435 9th Street
Turner, May, S.B.; District of Columbia.....	453 Irving Street

SUMMARY

First Year.....	46
Second Year.....	20
Third Year.....	26
Fourth Year.....	11
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DEPARTMENT OF DENTISTRY

CANDIDATES FOR THE DEGREE OF DOCTOR OF DENTAL SURGERY

First Year

*Battista, Alberto D.; Italy.....	221 1st Street
*Brill, Nathan P.; District of Columbia.....	2601 Georgia Avenue
Brower, Delmer D.; District of Columbia.....	704 K Street N. E.
Browne, Wilmer M.; New York.....	1433 New Jersey Avenue
*Brustein, Joseph; Pennsylvania.....	1544 9th Street
Carr, Josiah L.; Texas.....	1204 K Street
*Crawley, Clarence John; District of Columbia ..	1420 A Street N. E.
*Evansha, John Frank; Pennsylvania	508 10th Street
Frazier, Griffin Guy; District of Columbia.....	11 Grant Place

* Not in attendance throughout the year.

- Friedman, Joseph Altshuler; District of Columbia.....1817 5th Street
 *Goldsmith, Clarence K.; Maryland.....Station L, D. C.
 Hall, Arthur R.; District of Columbia...1300 Maryland Avenue N. E.
 *Henderson, I. Parnell; Georgia.....1300 Rhode Island Avenue
 *Hibbs, John Edward; Kentucky,

Care of Interstate Commerce Commission

- *Jensen, Julius Christian; Iowa.....1343 L Street
 Lewis, Ellis S.; Virginia.....School Street, Box 21, Ballston, Va.
 McNally, Benjamin Raymond; Rhode Island.....1220 G Street
 Minkin, Golda; District of Columbia.....412 P Street
 Palkin, Joseph Ralph; District of Columbia.....1736 15th Street
 *Puzrin, Nathan; Russia.....69 G Street
 Sampsell, Thomas Lloyd; District of Columbia.....730 12th Street
 Sandberg, Adolph; Massachusetts.....1402 14th Street
 Slack, Edward Markorn; District of Columbia.....417 6th Street
 *Thayer, David R.; Michigan,

Care of Depot Quartermaster U. S. Army

Thompson, Richard Knight; District of Columbia,

484 Maryland Avenue S. W.

- Thompson, James Gray; District of Columbia, 1207 East Capitol Street
 Tilley, Edwin Ross; District of Columbia.....3525 10th Street
 Urrows, Harold; Massachusetts.....102 I Street
 *Valaer, Peter, Jr.; North Carolina.....708 19th Street
 *Varela, E. R.; District of Columbia.....1004 E. Capitol Street
 Wagner, Lawrence R.; New York.....802 L Street
 Walze, Carl W.; Pennsylvania.....459 Massachusetts Avenue
 *Weir, Samuel Alfred; Virginia.....Fort Myer, Va.
 *Wolling, Meredith R.; South Carolina.....1747 F Street
 Wrisinski, Leo J.; Illinois.....623 19th Street

Second Year

- Beebe, Ira Dow; Connecticut.....1020 9th Street
 Bonseigneur, Camille Robespierre; District of Columbia...1311 E Street
 Callar, Donald; Pennsylvania.....828 12th Street
 Danemann, Samuel; Russia.....317 C Street
 Davis, Albert Wendell; Tennessee.....218 F Street N. E.
 Fansler, Orville Newton; Nebraska.....Bethesda, Md.
 Forbes, William E.; New York...Princeton Apartments, 1430 V Street
 Gardner, Albert P.; Ohio...Naval Medical School, 24th and E Streets
 Ginsberg, Samuel B.; District of Columbia.....1234 I Street
 Golden, Edward Earl; Wyoming.....1720 Newton Street
 Guilhempe, Nemorin; France.....925 12th Street
 Hagen, Walter L.; New York.....501 2d Street N. E.
 Haywood, Markley R.; New York.....1217 E. Capitol Street
 Hogan, Arnold Wilbur; Virginia.....933 G Street

* Not in attendance throughout the year.

King, Mansfield Venable; Virginia.....	1323 F Street
Mead, Sterling Vernon; Kansas,	
The Norwood, Apt. 12, 1443 E. Capitol Street	
Prendergast, Benjamin Frank; District of Columbia.....	465 G Street
Roberts, Jasper Newton; Tennessee.....	1307 H Street
Smith, Jesse K.; Virginia.....	Room 332, Treasury Building
Walls, Harry E.; Georgia.....	1234 I Street

Third Year

Achsan, Samuel Charles; New York.....	3501 14th Street
Alley, Edward C.; Kentucky.....	1722 Pennsylvania Avenue
Briggs, Elmer E.; Pennsylvania.....	1419 Ames Place N. E.
Brodsky, Marie G.; Russia.....	646 Pickford Street N. E.
Durfee, Claude; Illinois.....	3501 14th Street
Eisenstein, Nathan; Massachusetts.....	825 Vermont Avenue
Hardester, John S.; District of Columbia.....	912 I Street
Maphis, Carl Burdette; Virginia.....	333 C Street
Marstella, John P.; Illinois.....	17 R Street N. E.
Rich, Charles W.; Pennsylvania.....	1006 K Street N. E.
Silliman, Walter Brittin; Pennsylvania.....	915 New York Avenue
Spillan, Henry Merle; New York.....	1319 Fairmont Street
White, George Elwood; Massachusetts.....	1936 Calvert Street
Williams, Edward; New York.....	3025 11th Street

Special

Bear, Ewing Marvin W., D.D.S.; District of Columbia.....	620 I Street
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First Year.....	35
Second Year.....	20
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NATIONAL COLLEGE OF PHARMACY

CANDIDATES FOR THE DEGREE OF DOCTOR OF PHARMACY

Freshmen

Adams, William S.; District of Columbia.....	713 6th Street N. E.
Arnold, Howard L.; Virginia.....	222 N Patrick Street, Alexandria, Va.
Bayne, Thomas A.; Virginia.....	207 S. Fairfax Street, Alexandria, Va.
Bronson, William J.; District of Columbia.....	3441 14th Street
Boehme, Leslie E.; Virginia.....	1352 B Street S. W.
Borland, Anna May; Michigan.....	The New Berne

Biggins, James; District of Columbia.....	1328 34th Street
Brown, Andrew Jackson; North Carolina.....	619 East Capitol Street
Cowling, Herford T.; Virginia.....	938 K Street
Evans, Ethel Juliet; District of Columbia..	The Stafford, Lanier Place
Furbershaw, Joseph A.; New York.....	80 R Street
Goldstein, Morris G.; Russia.....	458 P Street
Kerfoot, Garland S.; Virginia.....	69 W Street
Kenner, Harvey R.; District of Columbia.....	1711 17th Street
Lawson, James H.; North Carolina.....	815 C Street N. E.
Lear, Israel; Russia.....	1253 9th Street
Mentzel, Kurt Otto; Wisconsin.....	3224 13th Street
Malone, William W.; District of Columbia,	
	305 Pennsylvania Avenue S. E.
McLoughlin, Joseph; Pennsylvania.....	237 New Jersey Avenue
Modena, Erwin; Virginia.....	16 3d Street S. E.
Norris, Earl M.; Maryland.....	130 Randolph Street
Symonds, Joseph L.; Maryland.....	925 12th Street
Tibbets, Lyman B.; District of Columbia.....	1636 17th Street
Vestal, Paul W.; North Carolina.....	7th and Massachusetts Avenue
Williams, Clyde G.; Pennsylvania.....	1014 Pennsylvania Avenue S. E.
Wedding, William C.; District of Columbia.....	18 6th Street N. E.

Juniors

Biggs, John G.; District of Columbia.....	621 Irving Street
Blackistone, Beulah L.; District of Columbia.....	1548 8th Street
Burgher, Vincent A.; New Jersey.....	1304 Park Road
Crisp, Thomas B, Jr.; District of Columbia.....	638 E Street N. E.
Carroll, John M.; District of Columbia.....	1442 Florida Avenue
Donohoe, Walter J. A.; New York.....	1808 1st Street
Donahue, T. Francis; District of Columbia.....	3345 P Street
Fink, James A.; District of Columbia.....	1826 15th Street
Heller, Theodore J.; District of Columbia.....	740 7th Street S. E.
Hall, Earle R.; Iowa.....	1333 Columbia Road
Kimball, Clarence V.; North Carolina.....	1850 Park Road
Koss, Flavell E.; District of Columbia.....	1814 Calvert Street
Lantz, Samuel A.; Virginia.....	1377 Irving Street
Murphy, John A.; Pennsylvania.....	301 Pennsylvania Avenue S. E.
LL.B., Georgetown University.	
McCambridge, Joseph A.; District of Columbia.....	604 22d Street
Moose, George K.; North Carolina.....	1100 14th Street
Pettit, Robert F.; District of Columbia.....	403 2d Street S. E.
Ros, Carlos M.; Panama.....	1021 8th Street
Stephens, William A.; Kentucky.....	703 15th Street
Snyder, Frank J.; Arkansas.....	1000 24th Street
Weil, Albert; District of Columbia.....	Alexandria, Va.

Seniors

Barker, Charles W.; Maryland	Room 322, Post Office Department
Chamblin, Ralph V.; Virginia	Herndon, Va.
Dudley, Frederick E., Jr.; District of Columbia	Takoma Park, D. C.
Hohberger, Samuel J.; Maryland	35 Q Street N. E.
Kinsey, Raymond D.; District of Columbia	459 G Street S. W.
Kloczewski, Albert M.; District of Columbia	5th and G Streets
Mix, Anna E.; Maryland	113 Maryland Avenue N. E.
Maxwell, David L.; Tennessee	21st and G Street
Swann, Edwin A.; Maryland	Naval Hospital, D. C.
Snider, Clyde F.; Kansas	24th and E Street
Smyser, Bert A.; Pennsylvania	446 Kentucky Avenue S. W.
Tennyson, Irving A.; Virginia	Alexandria, Va.
Umhau, John W.; District of Columbia	731 10th Street S. E.
Whittlesey, William H., Jr.; Ohio	3407 Holmead Place
Whitley, Lawrence B.; North Carolina	26 Q Street

Taking Special Courses

Barnett, William D. (Chemistry); Texas	3845 Davenport Place
Rosenberg, Louis C. (Chemistry); Connecticut	709 P Street

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Freshman Class	26
Junior Class	21
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COLLEGE OF VETERINARY MEDICINE

CANDIDATES FOR THE DEGREE OF DOCTOR OF VETERINARY MEDICINE

Freshmen

Biondi, Harry J.; District of Columbia	508 7th Street S. E.
Brown, Herbert H.; Missouri	922 L Street
Buffin, Kenneth E.; Maryland	1317 F Street
Grubb, W. Hugh; Virginia	1408 Belmont Street
Lynn, William M.; North Carolina	115 I Street
Rippon, Charles William; Pennsylvania	1322 W Street
Sipos, Andrew J.; Virginia	2115 14th Street
Skippon, Charles D.; Pennsylvania	2008 1st Street
Tucker, Ira L.; Virginia	1511 28th Street
Wilcox, Floyd P.; New York	1117 8th Street

Juniors

Cashell, Irving M.; Maryland.....	2907 Sherman Avenue
Chapin, Judson Kerfoot; Virginia.....	1401 5th Street
Colflesh, Joseph Harmon; Pennsylvania.....	1408 Belmont Street
Cook, Parley Mere; Ohio.....	1303 R Street
Crawford, Arthur Burdeck; Massachusetts.....	1712 15th Street
Esses, John James; Maryland.....	744 Morton Street
Forbes, Samuel Dexter; Virginia.....	2115 14th Street
Gantz, Claudius R.; District of Columbia.....	1206 D Street
Getz, Harry Rohrer; Pennsylvania.....	1303 R Street
Grenfell, Frederick Aloysius; District of Columbia.....	1916 H Street
Hayes, Jesse; New Jersey.....	1325 New York Avenue
Kelser, Raymond Alexander; District of Columbia,	231 14th Street N. E.
Lundsten, Edwin; Minnesota.....	Navy Department
Miller, Howard Sydnor; Virginia.....	The Fredonia.
Munro, Joseph Briggs; Rhode Island.....	2707 11th Street
Reynolds, François H. K.; Wisconsin.....	240 2d Street N. E.
Shillinger, Jacob Edward; Maryland.....	1330 W Street
Trigg, William S.; Virginia.....	2116 Flagler Place
Whitney, Clifford Caswell; Massachusetts.....	1128 B Street N. E.

Seniors

Behney, Jacob E.; Pennsylvania.....	2115 14th Street
Craig, Norman Chandler; Pennsylvania.....	26 Iowa Circle
Gillette, George H.; Kansas.....	26 Iowa Circle
Hargett, Ernest George; North Carolina.....	310 3d Street
Hooker, William Anson; Massachusetts.....	1829 G Street
Lambert, Fred W.; Maryland.....	778 Hobart Place
McLaughlin, Joseph Edward; Illinois.....	1400 Chapin Street
Morcock, Julius Edward; Georgia.....	2115 14th Street
Nicol, James Buchanan; Virginia.....	1444 W Street
Potteiger, Clarence B.; Pennsylvania.....	1400 Chapin Street

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GEOGRAPHICAL DISTRIBUTION

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California.....	6	South Carolina.....	11
Colorado.....	11	South Dakota.....	7
Connecticut.....	8	Tennessee.....	14
Delaware.....	3	Texas.....	15
District of Columbia.....	526	Utah.....	11
Florida.....	3	Vermont.....	8
Georgia.....	6	Virginia.....	90
Idaho.....	5	Washington.....	11
Illinois.....	28	West Virginia.....	8
Indiana.....	14	Wisconsin.....	18
Iowa.....	26	Wyoming.....	2
Kansas.....	12	Canada.....	1
Kentucky.....	11	China.....	5
Louisiana.....	5	Columbia.....	1
Maine.....	10	Cuba.....	1
Maryland.....	64	Dominican Republic.....	1
Massachusetts.....	42	France.....	1
Michigan.....	19	Germany.....	3
Minnesota.....	13	Greece.....	1
Mississippi.....	3	Holland.....	1
Missouri.....	14	Honduras.....	1
Montana.....	4	Mexico.....	1
Nebraska.....	18	Nova Scotia.....	1
New Hampshire.....	4	Panama.....	2
New Jersey.....	20	Porto Rico.....	4
New Mexico.....	5	Russia.....	6
New York.....	70	Sweden.....	1
North Carolina.....	22	Switzerland.....	1
North Dakota.....	2		
Ohio.....	33		

GENERAL SUMMARY

TEACHING STAFF

In many instances members of the Teaching Staff give only part time to the University:

Professors.....	68
Associate Professors.....	10
Associates.....	13
Assistant Professors.....	19
Lecturers and Instructors.....	68
Assistants and Demonstrators.....	14
Total.....	192

STUDENTS REGISTERED IN THE UNIVERSITY, 1912-1913

Department of Arts and Sciences

School of Graduate Studies.....	92
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Professional Department

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Associated Colleges

National College of Pharmacy.....	64	
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		1365
Duplicates.....		18

Total Registrations for the Year.....		1347
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DEGREES CONFERRED

AT FALL CONVOCATION, 1912

IN COURSE

Bachelor of Arts

Hsiao Min Louis China

Bachelor of Laws

Eugene Webster Bond Illinois
Guy Edwin Rowland Texas
Henry William Zeh District of Columbia

Doctor of Medicine

True S. Burgess Arkansas
Richard Vernon Pitt Virginia

Doctor of Dental Surgery

Caleb Willard Camalier District of Columbia
A. Alfredo Rubira, D. Ecuador
Washington Clarence Zepp New Jersey

AT WINTER CONVOCATION, 1913

IN COURSE

Doctor of Philosophy

Marcus Ward Lyon, Jr. New Jersey
B.P., 1897, Brown University; S.M., 1900, M.D., 1902, George
Washington University.

Master of Science

Luther Welsh Missouri
Graduate, 1909, United States Naval Academy.
Theodore Stark Wilkinson, Jr. District of Columbia
Graduate, 1909, United States Naval Academy.

Bachelor of Arts

Gertrude Richardson Brigham Massachusetts
Francis Edward Carter Virginia

John Paton Fleming.....	Virginia
John Joseph Lenney.....	Virginia
Joseph Fels Ritt.....	New York
Harold Ellsworth Warner.....	District of Columbia

Bachelor of Science

Halsey Dunwoody.....	District of Columbia
(As of the class of 1903.) Graduate 1905, United States Military Academy.	
Waldo Lasalle Schmitt.....	District of Columbia

Bachelor of Laws

Charles Wesley Gerard.....	District of Columbia
A.B., 1906, Ohio State University.	
Leon Clifton Guphill.....	Maine
A.B., 1909, Colby College.	
Charles Taft Hawley.....	Massachusetts
S.B., 1898, M.E., 1908, Worcester Polytechnic Institute.	
Arthur John Kause.....	District of Columbia
Ray Dudley Lillie.....	Michigan
A.B., 1904, University of Michigan.	
James Ballard Moore.....	District of Columbia
Roy Lyman Neuhauser.....	District of Columbia
A.B., 1909, George Washington University.	
Lester Llewellyn Schnare.....	Georgia
Paul James Shaw.....	Pennsylvania
Loyd Hall Sutton.....	Massachusetts
With Distinction.	
S.B., 1908, Massachusetts Institute of Technology.	

Bachelor of Law

Max Warburton Davis.....	Connecticut
M.E., 1908 Cornell University.	

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The Secretary of the General Alumni Association, whose office is at the University, endeavors to keep a list of the addresses of all Alumni. His catalogue now contains the addresses of about 4200 graduates. It is known that about 1300 are dead, and information is lacking in regard to the others. All Alumni are urged to keep the Secretary informed of any change of address or occupation, and to supply information in regard to their fellow Alumni.

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DIRECTORY

OFFICERS OF GOVERNMENT, ADMINISTRATION, AND INSTRUCTION

The number enclosed in brackets indicates the page in this catalogue on which may be found the full name, degree and title of the officer.

ABBE, T., [36].....	1819 M Street
ACKER, G. N., [32].....	913 16th Street
ALDEN, L. R., [35].....	809 L Street
ALDERMAN, Z. W., [37].....	Kenois Building
AMMERMAN, C. C., [37].....	2314 18th Street
ASH, P., [33].....	Cosmos Club
ASHLEY, R. S., [37].....	1100 M Street
AUSTIN, O. P., [35].....	1620 Massachusetts Avenue
BALDWIN, A. H., [37].....	Bureau of Foreign and Domestic Commerce
BARNES, F. M., Jr., [37].....	Government Hospital for Insane
BARNES, N. P., [34].....	212 Maryland Avenue N.E.
BARTSCH, P., [33].....	2416 14th Street
BASSETT, C. T., [34].....	1409 L Street
BASSLER, R. S., [35].....	U. S. National Museum
BEEKMAN, D. D., [34].....	New District National Bank Building
BEESON, L. W., [171].....	664 Massachusetts Avenue
BERNHARD, J. W., [37].....	710 14th Street
BEYER, H. G., [28].....	1725 H Street
BIBB, A. B., [33].....	1858 Columbia Road
BLAIR, G., [28].....	Union Trust Building
BORDEN, D. L., [37].....	Columbia Hospital
BORDEN, W. C., [33].....	1801 California Street
BOVÉE, J. W., [32].....	The Rochambeau
BRADBURY, H. M., [171].....	1304 Park Road
BRADBURY, W. H., [171].....	1304 Park Road
BRANDENBURG, E. C., [33].....	344 D Street
BRIDE, W. W., [176].....	Westory Building
BRIGGS, J. B., [35].....	1628 K Street
BROWNE, A. B., [28].....	1855 Wyoming Avenue
BUCK, J. M., [176].....	933 K Street
BUCKINGHAM, D. E., [176].....	2113 14th Street
BUHRMAN, A. G., [36].....	Clerk's Office, City Hall
BUTLER, H. K., [171].....	327 11th Street S.E.
BUTLER, W. K., [33].....	1207 M Street

CABELL, J. M., [34].....	The Rochambeau
CALL, A. D., [37].....	1329 Harvard Street
CAMPBELL, C. B., [28, 171].....	1668 Park Road
CARMICHAEL, R. B., [33].....	818 17th Street
CARROLL, M., [33].....	Cleveland Park
CHIPMAN, C., [36].....	629 G Street S.W.
CHURCH, M., [32].....	1608 20th Street
CHURCHILL, G. M., [36].....	205 The Newton
CLARKE, F. W., [32].....	Cosmos Club
CLAYTON, T. A., [32].....	1315 New Hampshire Avenue
CLEPHANE, W., [33].....	Chevy Chase, Md.
COBB, R., [35].....	1742 R Street
COBEY, A. D., [37].....	613 15th Street
CONKLIN, C. B., [36].....	1342 R Street
CONSTANTINI, C. L., [36].....	The Wellington
COPELAND, E. P., [35].....	The Rockingham
COULTER, J. L., [36].....	908 15th Street
CRAIG, H. K., [30].....	1224 I Street
CRANE, A. B., [34].....	916 14th Street
CURTIS, H. L., [37].....	U. S. Bureau of Standards
DAVIS, C. L., [37].....	1355 Harvard Street
DAVIS, H. C., [28].....	1006 Massachusetts Avenue
DE FARGES, J. R., [34].....	1223 Vermont Avenue
DONNALLY, H. H., [34].....	1612 I Street
DULANEY, H. R., [176].....	1320 F Street
DUNSTAN, E. V., [34].....	3616 Newark Street
DYE, H. S., [36].....	1406 L Street
EARNEST, J. P., [33].....	2123 N Street
EASTERDAY, H. C., [171].....	101 G Street
ELLIOTT, H. R., [35].....	The Farragut
EPPLEY, J. K., [171].....	1417 Belmont Street
EUSTIS, W. C., [176].....	1611 H Street
FERSON, M. L., [35].....	1020 17th Street
FETTER, H. H., [177].....	3013 Dumbarton Avenue
FINLEY, M. F., [37].....	1925 I Street
FLATHER, W. J., [28].....	2033 R Street
FLEMER, L., [171].....	701 Maryland Avenue N.E.
FLOYD, H. B., [171].....	The Alabama
FOWLE, F. E., Jr., [35].....	Smithsonian Institution
FRANKLAND, W. A., [35].....	1300 Massachusetts Avenue
FRANKLIN, E. T. M., [36].....	1315 19th Street
FRANZ, S. I., [33].....	Government Hospital for Insane
FRASER, E., [35].....	1501 Park Road
FRASER, W. W., [37].....	Patent Office
FRENCH, W. J., [36].....	1736 18th Street
FULLER, H. G., [36].....	The Farragut

GARNETT, A. Y. P., [36].....	1409 Hopkins Place
GILL, T. N., [32].....	Cosmos Club
GORDON, H. H., [36].....	1310 Girard Street
GRAYBILL, H. W., [176].....	1828 15th Street
GREGORY, C. N., [34].....	2139 Wyoming Avenue
GRUBB, C. M., [176].....	2320 Ontario Road
HAGNER, F. R., [33].....	1725 N Street
HALL, A., Jr., [33].....	Naval Observatory
HANCOCK, W. E., [37].....	Takoma Park
HARRINGTON, G. T., [37].....	612 Randolph Street
HARRIS, A. L., [35].....	1505 Lamont Street
HARRISON, M. E., [37].....	The New Berne
HELLER, L., [177].....	2908 13th Street
HENDRY, M. W., [37].....	Bethesda, Md.
HENNING, G. N., [33].....	1728 20th Street
HENRY, F. C., [171].....	703 15th Street
HICKS, T., [176].....	621½ Park Road
HIGGINS, M. E., [34].....	The Benedick
HILL, E. A., [35].....	1221 K Street
HILTON, S. L., [171].....	2140 L Street
HODGKINS, H. G., [36].....	Naval Observatory
HODGKINS, H. L., [32].....	1830 T Street
HOLMES, C. W., [30].....	1360 Fairmont Street
HOOTON, P. R., [37].....	1825 U Street
HOPKINS, A., [28].....	1826 Massachusetts Avenue
HOPKINS, H. C., [36].....	The Rochambeau
HOPKINS, N. M., [35].....	2128 Bancroft Place
HOPKINS, T. S., [28].....	Hibbs Building
HORNADAY, F. A., [34].....	3509 14th Street
HORNBAKER, J. N., [177].....	3917 Kansas Avenue
HOWARD, B. J., [171].....	1366 North Carolina Avenue N.E.
HULL, J. A. T., [176].....	1833 V Street
HUMPHREYS, W. J., [34].....	Cosmos Club
HUNT, A. L., [36].....	The Burlington
HUNTER, O. B., [34].....	2021 H Street
HYDE, C. W., [36].....	The Plymouth
INGERSOLL, E. H., [37].....	2118 3d Street N.E.
JACKSON, V. B., [36].....	1332 I Street
JONES, H. C., [35].....	The Earlington
KALUSOWSKI, H. E., [171].....	808 I Street
KEATS, H., [37].....	2449 18th Street
KELLEY, J. T., [35].....	1312 15th Street
KEMBLE, A., [36].....	The Cecil

KERFOOT, W. T., [171].....	69 W Street
KERN, R. R., [35].....	The Woodworth
KERR, H. H., [36].....	1742 N Street
KIBLER, A. L., [37].....	1715 35th Street
KILLINGER, W. C., [37].....	Northeast corner 13th and I Streets
KING, A. F. A., [32].....	1315 Massachusetts Avenue
KING, W. B., [28].....	728 17th Street
KOLLIG, MATTHEW, [34].....	1325 H Street
KRAMER, S. E., [35].....	1725 Kilbourne Place
LAGARDE, L. A., [33].....	2624 Woodley Place
LARNER, J. B., [28].....	1709 19th Street
LATIMER, J. W., [35].....	Fendall Building
LAWRENCE, W. F., [34].....	1616 I Street
LAWSON, H. W., [34].....	1117 Vermont Avenue
LAYTON, R. E., [37].....	1311 Wisconsin Avenue
LECOMTE, R. M., [37].....	911 16th Street
LEECH, F., [35].....	1372 Columbia Road
LISNER, A., [28].....	1723 Massachusetts Avenue
LITTLEHALES, G. W., [34].....	2132 Le Roy Place
LOCHBOEHLER, H. A., [176].....	1320 W Street
LOCKWOOD, J., [176].....	910 1st Street
LOGIE, B. R., [36].....	1792 Columbia Road
MACDONALD, G. B. R., [36].....	4th and Pennsylvania Avenue S.E.
MACFARLAND, H. B. F., [28].....	1420 New York Avenue
McKIMMIE, O. A. M., [36].....	1317 Rhode Island Avenue
MACMILLAN, J. T., [37].....	600 Maryland Avenue N. E.
MCNEIL, H. C., [35].....	1210 Decatur Street
McNEMAR, L. C., [35].....	1713 S Street
MALLORY, W. J., [36].....	1720 Connecticut Avenue
MANN, A., [33].....	Department of Agriculture
MEARNS, W. A., [28].....	2301 S Street
MECHLIN, O. A., [34].....	3203 R Street
MENGE, G. A., [171].....	1749 Lanier Place
MERRILL, G. P., [32].....	U. S. National Museum
MERRILL, W. H., [36].....	1915 14th Street
MILLER, G. B., [34].....	1730 H Street
MOORE, B. F., [35].....	1617 S Street
MOORE, W. C., [35].....	2321 18th Street
MOORE, W. L., [34].....	Rockville, Md. R.F.D.
MORGAN, J. D., [33].....	919 15th Street
MORSE, R. W., [36].....	Patent Office
MORTIMER, C. W., [35].....	The Woodworth
MUNCASTER, A., [171].....	482 Louisiana Avenue
MUNROE, C. E., [32].....	2115 S Street

- NICHOLS, J. B., [34].....1321 Rhode Island Avenue
 NORRIS, J. W., [176].....1320 W Street
 NOYES, T. W., [28].....1730 New Hampshire Avenue
 NUTTING, P. G., [35].....Bureau of Standards

 ODOR, C. L., [34].....906 G Street
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TITUS, E. W., [37].....	Children's Hospital
TSCHIFFELY, D., [171].....	475 Pennsylvania Avenue
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VAN VLECK, W. C., [37].....	719 Quincy Street
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WAGGAMAN, S., [171].....	1403 31st Street
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POLITICAL SCIENCE IN
COLUMBIAN COLLEGE



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POLITICAL SCIENCE

IN

COLUMBIAN COLLEGE

Columbian College offers systematic instruction in the various branches of the political sciences. This education gives a training that will fit for consular and diplomatic positions and for the public service of the United States, while imparting that general culture and equipment necessary for efficient citizenship and the intelligent grasp of public questions. It is also a suitable training for those who expect to enter commercial life, or to engage subsequently in the study of law.

In Washington are collected the official records of the country. As the capital of the nation, Washington furnishes the best, and in many instances the only, opportunity for studying the government in actual operation. Congress, the Supreme Court, the Executive Departments, and the government of the District of Columbia, afford object lessons for the study of political science. Such an atmosphere for the student of the political sciences can be found nowhere else.

An Executive order of June 27, 1906, governing appointments and promotions in the Consular Service of the United States, included the following provisions of special interest to students having in view the Consular Service:

The Secretary of State, or such officer of the Department of State as the President shall designate, the Director of the Consular Service,* the Chief of the Consular Bureau,* and the Chief Examiner of the Civil Service Commission, or some person whom said Commission shall designate, shall constitute a Board of Examiners for admission to the consular service.

It shall be the duty of the Board of Examiners to formulate rules for and hold examinations of applicants for admission to the consular service.

The scope and method of the examinations shall be determined by the Board of Examiners, but among the subjects shall be included at least one modern language other than English; the natural, industrial and commercial resources and the commerce of the United States, especially with reference to the possibilities of increasing and extending the trade of the United States with foreign countries; political economy; elements of international, commercial and maritime law.

Examination papers shall be rated on a scale of 100, and no person rated at less than 80 shall be eligible for certification.

No one shall be examined who is under twenty-one or over fifty years of age, or who is not a citizen of the United States, or who is not of good character and habits and physically and mentally qualified for the proper performance of consular work, or who has not been specially designated by the President for appointment to the consular service subject to examination.

Regulations Governing Examinations Promulgated by the Board of Examiners, December 13, 1906

1. The examinations will be the same for all grades and will be to determine a candidate's eligibility for appointment in the consular service, irrespective of the grade for which he may have been designated for examination and without regard to any particular office for which he may be selected.

*As amended by Executive order of December 8, 1909.

2. The examinations will consist of an oral and a written one, the two counting equally. The object of the oral examination will be to determine the candidate's business ability, alertness, general contemporary information, and natural fitness for the service, including moral, mental, and physical qualifications, character, address, and general education and good command of English. In this part of the examination the applications previously filed will be given due weight by the Board of Examiners, especially as evidence of the applicant's business experience and ability. The written examination will include those subjects mentioned in the Executive order, to wit, at least one modern language other than English—French, German, or Spanish;* the natural, industrial, and commercial resources and the commerce of the United States, especially with reference to possibilities of increasing and extending the foreign trade of the United States; political economy, and the elements of international, commercial, and maritime law. It will likewise include American history, government, and institutions; political and commercial geography; arithmetic (as used in commercial statistics, tariff calculations, exchange, accounts, etc.); the modern history, since 1850, of Europe, Latin America, and the Far East, with particular attention to political, commercial, and economic tendencies. In the written examination, composition, grammar, punctuation, spelling, and writing will be given attention.

3. To become eligible for appointment, except as student interpreter, in a country where the United States exercises extraterritorial jurisdiction, the applicant must pass the examination outlined above, but supplemented by questions to determine his knowledge of the fundamental principles of common law, the rules of evidence, and the trial of civil and criminal cases.

4. The examinations to be given candidates for appointment as student interpreters will follow the same course as in the case of other consular officers, provided, however, that no one will be examined for admission to the consular service as a student interpreter who is not between the ages of nineteen and twenty-six, inclusive, and unmarried; and, provided further, that upon appointment each student interpreter shall sign an agreement to continue in the service so long as his services may be required, within a period of five** years.

5. Upon the conclusion of the examinations the names of the candidates who shall have attained upon the whole examination an average mark of at least eighty, as required by the Executive order, will be certified by the Board to the Secretary of State as eligible for

*As amended by the Board of Examiners, February 18, 1911.

**As amended by the Act approved May 21, 1908.

appointment in the consular service, and the successful candidates will be informed that this has been done.

6. The names of candidates will remain on the eligible list for two years, except in the case of such candidates as shall within that period be appointed, or as shall withdraw their names, and of candidates holding subordinate positions in the consular service, when eligibility shall not expire until appointment to consular rank or until separation from the service. Candidates whose names have thus been dropped from the eligible list will not again be eligible for appointment unless upon fresh application, designation anew for examination, and the successful passing of such second examination.*

Students who seek a designation for consular examination should apply to the Department of State for full information. Consular service examinations are held in Washington only.

Regular students in Columbian College who are preparing for the Government Service should register for Group IV of the curriculum requirements for the degree of Bachelor of Arts, (See University Catalogue) and should elect, also, the subjects named in SECTION 2 of the "Regulations Governing Examinations Promulgated by the Board of Examiners, December 13, 1906." (See page 3.)

Special students who are preparing for the Consular Service examinations should register for such courses as relate to subjects named in Section 2, of the Government Regulations. (See page 3.)

*As amended by the Board of Examiners, October 25, 1911

For the Degree of Bachelor of Arts

Suggested Course for the Political Science Student.

First Year.

	HOURS
Economics 20, 21, <i>a</i> or <i>b</i> (General Economics).....	3
English 1 or 2 (English Rhetoric)	3
French	3
History 1, 2 or 5, 6 (Mediaeval History)	3
Mathematics, 3 or 6	3

Second Year.

Economics 22, 23 (General Sociology, Modern Social Problems)	2
French	3
German	3
History 3, 4 (Modern European); 33 (Current History)	4
Political Science, 20, 25 or 21, 22	3

Third Year.

Economics, 26, 27 (Public Finance, Money and Banking)	2
English 20 (English Composition)	2
French or Spanish	3
German	3
History (American or English)	3
Political Science, 21, 22 or 20, 25.	3

Fourth Year.

Economics, 33, (Commercial and Maritime Law).....	2
Economics, 37, (Commercial Geography and Business Organization)	2
History, (English or American)	3
International Law, 20,	3
Political Science, 41, (Constitutional Law)	2
Psychology and Logic	3

Courses of Instruction

ECONOMICS

20. *General Economics*.—An outline course in the principles of political economy, devoted mainly to the study of production and exchange under present-day conditions. Given in two sections. First half-year. *Mon., Wed., Fri.*, at 11-15 (Section a); at 5-50 (Section b), Assistant Professor KERN.

21. *The Economics of Distribution and Consumption*.—A continuation of Course 20, devoted mainly to the problems of rent, interest, wages, and profits, and including an examination of competition, private property, luxury, saving, and speculation, in their effects upon human welfare. Given in two sections. Second half-year. *Mon., Wed., Fri.*, at 11-15. (Section a); at 5-50. (Section b), Assistant Professor KERN.

22. *General Sociology*.—An outline course in the principles of sociology, devoted mainly to the study of social origins and the development of existing social institutions, with special attention to social psychology. Two hours, first half-year. *Mon., Fri.*, at 5-00. Assistant Professor KERN.

23. *Modern Social Problems*.—A further analysis of modern social conditions with special studies of current questions in sociology. Prerequisite, the course in general sociology. Two hours, second half-year. *Mon., Fri.*, at 5-00. Assistant Professor KERN.

24. *The History of Economic Thought*.—A review of the development of economics as a science from the earliest times to the present. Lectures and library readings. Two hours, first half-year. *Tu., Th.*, at 5-00. Given in alternate years. Not given in 1913-14. Assistant Professor KERN.

25. *Social Psychology*.—A study of the psychological nature of man; his instincts, feelings, and passions as social forces; an inquiry into the development of these forces, and the reaction of the social mind upon the individual; an investigation of the theories of Giddings, Tarde, Ross, and McDougall. Second half-year. *Tu., Th.*, at 5-50. Given in alternate years. Not given in 1913-14. Assistant Professor KERN.

26. *Public Finance*.—A course in the development of budgetary and fiscal methods and principles. The history and tendencies of public expenditure under the Federal and State governments. The theory of taxation; administration of public domains, and industries; public debts. First half-year. *Tu., Th.*, at 5-00. Assistant Professor KERN.

27. *Money and Banking*.—The history and theory of money; the production of the precious metals; the theory of prices and measurement of price fluctuations; monetary systems; the relation of the Treasury system to our money supply; the theory of credit and banking; the national bank system of the United States and the banking system of foreign nations. Second half-year. *Tu., Th.*, at 5-00. Assistant Professor KERN.

33. *Commercial and Maritime Law*.—An outline of the principles of the law relating to commercial transactions generally, including those peculiar to the sea, with more especial reference to the subjects of contracts, sales, bailments, agency, partnership, negotiable instruments, and common carriers. Two hours.

37. *Commercial Geography and Business Organization*.—The products, industries, and commerce of the various countries and sections of the world; the exchanges between climatic sections and between the great producing and manufacturing sections and countries of the world; the staple articles of commerce, their places of production and sale; manufacturing industries and the distribution of their products; the transportation and financial systems by which interchanges are facilitated; a comparative view of the commercial, economic, and financial conditions in the various sections and countries of the world. *Mon., Fri.*, at 5-50. Mr. AUSTIN.

ENGLISH

1. *English Rhetoric*.—A study of the principles of self expression through language with practice in composition. *Tu., Th., Sat.*, at 10-15. Professor WILBUR.

2. *English Rhetoric*.—Parallel with Course 1. *Mon., Wed., Fri.*, at 5-00. Professor WILBUR.

NOTE.—Credit for Course 1 or 2 is requisite for admission to any other course in English.

20. *English Composition*.—*Tu., Th.*, at 11-15. Assistant Professor COBB.

FRENCH

1. *Grammar, Composition, Drill in Pronunciation*.—Fraser and Squair's French Grammar. Translation and reading of nineteenth century fiction and history. (400-500 pages.) For beginners. *Mon., Wed., Fri.*, at 11-15. Professor HENNING.

2. Parallel with Course 1. Fraser and Squair's French Grammar. *Tu., Th., Sat.*, at 5-50. Professor HENNING.

3. *Translation, Reading, Grammar, Composition.*—Fraser and Squair's French Grammar. Mérimée's *Carmen*; other texts to be announced. Open to students who have passed in French 1 or 2, or have fulfilled the admission requirements in Elementary French. *Mon., Wed., Fri.*, at 10-15. Professor HENNING.

4. Parallel with Course 3. Fraser and Squair's French Grammar. First text, Mérimée's *Carmen*; other texts to be announced. *Tu., Th., Sat.*, at 5. Professor HENNING.

6. *General Survey of French Literature, Nineteenth to Seventeenth Centuries.*—Translation, collateral reading and reports thereon, lectures on literature and the history of the language, composition. Open to students who have passed in Course 3 or 4, or have fulfilled the admission requirements in Advanced French. *Mon., Wed., Fri.*, at 3-45. Professor HENNING.

SPANISH

1. *Grammar, Composition.*—Hills and Ford's Spanish Grammar. Translations and reading of nineteenth century fiction and drama. Open to first-year students only by permission of the instructor. *Mon., Wed., Fri.*, at 5-00. Mr. HANCOCK.

2. *Translation of Modern Prose and Poetry.*—With much collateral reading. *Mon., Wed., Fri.*, at 4-00. Mr. HANCOCK.

GERMAN

1. *Elementary.*—The essentials of German grammar; translation of prose and poetry; composition and dictation. This course is open only to beginners, and the work done is equivalent to that of a two years' course in high schools and academies of good standing. *Tu., Th., Sat.*, at 11-15. Professor SCHOENFELD.

2. Parallel with Course 1. *Tu., Th., Sat.*, at 5-00. Professor SCHMIDT.

3. Selected texts from the best contemporary authors will be read and one or more of the German classics carefully studied. The work in grammar and composition done in elementary German will be continued, with special emphasis on syntax, word-formation, and the relationship of German and English. This course is equivalent to the

advanced German of the admission requirements, and it is open only to students who have passed Course 1 or 2, or have satisfied the admission requirement in elementary German. *Mon., Wed., Fri.*, at 11-15. Professor SCHOENFELD.

4. Parallel with Course 3, except that in the second term scientific German is read. *Tu., Th., Sat.*, at 5-50. Professor SCHMIDT.

5. Advanced course in German syntax: principal difficulties of the language: idioms; synonyms; extensive translations of the best English prosaists into German; essays; selected advanced prose; classical reading and literature; German history. Open to students who have passed Course 3 or have satisfied the admission requirement in advanced German. *Mon., Wed., Fri.*, at 1-45. Professor SCHOENFELD.

6. Parallel with Course 5, with special reference to advanced students, both in the historico-political and scientific departments. *Tu., Th.*, at 5-00. Professor SCHOENFELD.

HISTORY

1. *Mediaeval History*.—A history of the settlement of the Germanic tribes in the territory of the empire, with a study of feudal institutions, extending through the movements of the Crusades; texts with assigned readings. First half-year. *Mon., Wed., Fri.*, at 2-45. Professor SWISHER.

2. *Mediaeval History*.—A history of the evolution of national government extending through the periods of the Renaissance and the Protestant Revolution; texts and assigned readings. Second half-year. *Mon., Wed., Fri.*, at 2-45. Professor SWISHER.

3. *Modern European History*.—A study of the European States under the new conditions resulting from the discovery of America and the opening of the oriental trade routes, extending through the period of the French Revolution; texts, lectures, and collateral readings. First half-year. *Mon., Wed., Fri.*, at 3-45. Professor SWISHER.

4. A continuation of the preceding through the revolutionary movements of the nineteenth century, with a more detailed study of recent issues; texts, lectures, and collateral readings. Second half-year. *Mon., Wed., Fri.*, at 3-45. Professor SWISHER.

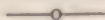
5. *Mediaeval History*.—Parallel with Course 1. First half-year. *Tu., Th., Sat.*, at 5-50. Professor SWISHER.

6. *Mediaeval History*.—Parallel with Course 2. Second half-year. *Tu., Th., Sat.*, at 5-50. Professor SWISHER.

25. *English History*.—A general course with particular attention to constitutional and political development. Text-book, lectures and assigned readings. *Tu., Th., Sat.*, at 11-15. Assistant Professor MOORE.

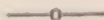
30. *American Constitutional History*.—A history of the origin and development of the Federal Constitution of 1789, with a study of its interpretation under the pressure of party issues. Lectures, text-books, and collateral readings. *Tu., Th., Sat.*, at 5-00. Professor SWISHER.

33. *Current History*.—A discussion of political questions of the day, with special reference to their origin and historical significance. Lectures throughout the year. *Sat.* at 11-15. Professor SWISHER.



INTERNATIONAL LAW AND DIPLOMACY

20. *Principles of International Law*.—A detailed course in the nature, sources and sanctions of International Law, including the usages and immunities of Diplomacy, the questions of treaties, the duties and practice of Consular officers and the history and organization of the Department of State. A series of lectures and assigned readings by the President, supplemented by case instructions by Assistant Professor MOORE. *Wed.* at 5-00. President STOCKTON. *Mon., Fri.*, at 5-00. Assistant Professor MOORE.

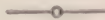


MATHEMATICS

3. *Solid Geometry; College Algebra; Plane Trigonometry*.—*Mon., Wed., Fri.*, at 9-15. Professor HODGKINS.

4. *Algebra; Plane Trigonometry*.—*Mon., Wed., Fri.*, at 5-00. Mr. HODGKINS.

6. *Solid Geometry; College Algebra; Plane Trigonometry*.—*Mon., Wed., Fri.*, at 5-50. Mr. HODGKINS.



PHILOSOPHY

1. *General Psychology*.—An introductory study of the principal facts and laws of the mental life. *Mon., Fri.*, at 10-15. Professor RUEDIGER.

2. *General Psychology*.—Parallel with Course 1. *Mon., Fri.*, at 5-00. Professor RUEDIGER.

3. *Logic and Theory of Knowledge*.—Principles of deductive and inductive inference, followed by a study of the nature and structure of knowledge, its organization, and its relation to language. *Wed.*, at 10-15. Professor RUEDIGER.

4. *Logic and Theory of Knowledge*.—Parallel with Course 3. *Wed.*, at 5-00. Professor RUEDIGER.

Courses 1 and 3, or 2 and 4 are planned to be taken together, but may be taken separately and are intended to satisfy the requirements in Psychology and Logic of Groups I to IV. (See University Catalogue.)

POLITICAL SCIENCE

20. *Elements of Political Science*.—An introductory course in political science, dealing with the origin, nature, and functions of the State; the fundamental political concepts such as the State, sovereignty, government, law; the forms of State; the forms of government; distribution of the powers of government. Recommended as a prerequisite for the succeeding courses. Text-book and assigned reading. First half-year. *Tu., Th., Sat.*, at 10-15. Assistant Professor MOORE.

21. *American Government*.—A general introductory course to American Government. The establishment of the Federal Constitution; a descriptive study and general survey of the national government and a more detailed study of the State and local governments. Lectures, text and assigned reading. First half-year. *Tu., Th., Sat.*, at 5-00. Assistant Professor MOORE.

22. *National Government*.—A continuation of the preceding course. A detailed study of the federal government, taking up the executive, Congress and the judiciary. Lectures, text and assigned reading. Second half-year. *Tu., Th., Sat.*, at 5.00. Assistant Professor MOORE.

23. *Municipal Government in the United States*.—A study of the organization and administration of city government in the United States with a limited comparative study of European conditions. The growth of cities; their relation to the state; powers and liabilities of municipal corporations; municipal problems such as those relating to local transportation, police, light and water supply, municipal ownership of public utilities. Three hours, first half-year. *Mon., Wed., Fri.*, at 1-45. Assistant Professor MOORE. Not given in 1913-14.

VOLUME XII

NUMBER 2

The George Washington University Bulletin

TREASURER'S REPORT
1912-1913



PUBLISHED BY THE UNIVERSITY AT WASHINGTON, D. C., IN MARCH,
JUNE, OCTOBER, AND DECEMBER

Entered October 6th, 1904, at Washington, D. C., as second-class
matter under Act of Congress of July 16th, 1894.

The
George Washington University
Bulletin

OCTOBER, 1913

REPORT OF THE TREASURER

WASHINGTON, D. C.
PRESS OF JUDD & DETWEILER, INC.
1913

Report of the Treasurer

OCTOBER 6, 1913.

The Board of Trustees of The George Washington University.

GENTLEMEN: I have the honor to submit herewith a report showing in detail the financial operations of the University during the fiscal year ended August 31, 1913, and exhibiting the condition of endowment and special funds, certified by The American Audit Company of New York, as required by the By-Laws of the University.

Very respectfully yours,

CHARLES W. HOLMES,
Treasurer.

Report of The American Audit Company

OCTOBER 4, 1913

GENTLEMEN: We have examined the accounts and records of THE GEORGE WASHINGTON UNIVERSITY for the year ended August 30, 1913, and submit herewith our report, including exhibits and schedules, as follows:

EXHIBIT "A"—BALANCE SHEET,

As at August 30, 1913.

"B"—SURPLUS ACCOUNT,

As at August 30, 1913.

"C"—DEPARTMENT OF MEDICINE SURPLUS,

As at August 30, 1913.

"D"—DEPARTMENT OF LAW SURPLUS.

As at August 30, 1913.

"E"—REVENUE ACCOUNT,

For the year ended August 30, 1913.

"F"—DEPARTMENT OF ARTS AND SCIENCES.

For the year ended August 30, 1913.

"G"—DEPARTMENT OF LAW.

For the year ended August 30, 1913.

"H"—DEPARTMENT OF MEDICINE AND DENTISTRY,

For the year ended August 30, 1913.

"I"—DEPARTMENT OF DENTISTRY.

For the year ended August 30, 1913.

"J"—UNIVERSITY HOSPITAL.

For the year ended August 30, 1913.

"K"—STATEMENT OF CASH RECEIPTS AND PAYMENTS.

For the year ended August 30, 1913.

"L"—SUMMARY OF ENDOWMENT FUNDS,

As at August 30, 1913.

"M"—SPECIAL FUNDS.

As at August 30, 1913.

"N"—ENDOWMENT AND SPECIAL FUNDS, INCOME AND EXPENSE,

For the year ended August 30, 1913.

SCHEDULE "1"—IMPAIRMENT OF ENDOWMENT FUNDS,

As at August 30, 1913.

"2"—ENDOWMENT FUNDS REPRESENTED BY INVESTMENTS,

As at August 30, 1913.

"3"—ENDOWMENT FUNDS INVESTMENTS,

As at August 30, 1913.

CASH: \$12,074.99.

We counted the cash on hand on September 7, 1913, and reconciled the Cash Account with bank pass books as at August 30, 1913, finding deposits in banks as per pass books and cash in accord with balances shown by your books.

ACCOUNTS RECEIVABLE: \$7,831.29.

These accounts consist of fees, etc., due for the term of 1912-1913 from students in the various departments as follows:

School of Graduate Studies.....	\$70.51	
Columbian College.....	657.06	
College of Engineering.....	390.49	
College of Political Sciences.....	281.87	
		<hr/>
Total Department of Arts and Sciences....	\$1,399.93	
Department of Law.....	278.25	
Department of Medicine.....	\$37.59	
Department of Dentistry.....	733.71	
		<hr/>
	771.30	
		<hr/>
		\$2,440.48
Accounts due University Hospital from patients for the year 1912-1913		1,504.81
Income from Endowments available but not transferred to University account, as at August 30, 1913.....		3,877.00
		<hr/>
		\$7,831.29
		<hr/>

The balances standing in accounts, as at September 1, 1912, remaining unpaid at August 31, 1913, are considered worthless and were charged against the respective Surplus Accounts.

EQUIPMENT: \$74,906.05.

The cost of equipment purchased during the year was added to this account.

DEPRECIATION:

No adjustment on account of depreciation was made during the year of book value of Library Books and Equipment.

RESERVE FOR REPAIRS AND REPLACEMENTS: \$1,215.40.

The insurance collected on account of fire loss on contents of Medical Building amounted to \$1,330.00, of which \$114.60 has been expended for replacements, etc., leaving balance of \$1,215.40.

LIABILITY FOR IMPAIRMENT OF ENDOWMENT FUNDS: \$342,005.02.

The impairment of Endowment Funds, as at August 31, 1910 (\$342,015.02), has been decreased \$10.00 by donation for the rehabilitation of the Corcoran Endowment.

NET INCOME:

The Net Income for the year from all departments, exclusive of the University Hospital, was \$7,015.13, as shown by Exhibit "E."

Under instructions from the President of the University, all maintenance charges were included with the general expenses (instead of being charged directly against the respective departments), and the contributions from departments to the General Expenses of the University increased accordingly.

DEPARTMENT OF MEDICINE SURPLUS: \$4,821.13.

This account includes the Surplus of the University Hospital and Department of Medicine and Dentistry at August 30, 1913, as shown by Exhibit "C."

DEPARTMENT OF LAW SURPLUS: \$18.51.

The Net Loss of the Department of Law for the year ended August 30, 1913, was charged to the General Surplus Account, under instruction of the President of the University, as an offset, in part, to the contribution by this Department to the General Expenses of the University.

SURPLUS ACCOUNT: \$192,417.55.

The variation in this account over August 31, 1912, is shown by Exhibit "B."

ENDOWMENT FUNDS:

On September 25, 1913, in the presence of Mr. Charles W. Holmes, Treasurer, and Mr. Richard Cobb, Secretary, at the American Security and Trust Company, Washington, D. C., we inspected the securities representing the investments of Endowment and Special Funds in stocks and bonds (as per Exhibit "M") and (Schedule "3"). We also inspected the trust notes shown in Schedule "3" on September 25 and 26, 1913, at the several banks where they were entered for collection.

We also verified the cash balances at August 30, 1913, representing the uninvested principal and unexpended income of the Endowment and Special Funds by reconciliation of these funds with bank pass books.

We beg leave to express our appreciation of the courtesies extended us during the course of the audit.

Respectfully submitted,

[SEAL.]

THE AMERICAN AUDIT COMPANY,
By OTTO LUEBKERT,
Resident Vice-President.

Approved:

F. W. LAFRENTZ, *President.*

Attest:

THEO. COCHEU, JR., *Secretary.*

EXHIBIT "A."

BALANCE SHEET.

As at August 30, 1913.

Assets.		Liabilities.	
Cash:		Trust Notes:	
In Bank	\$11,074.99	Notes secured by Deeds of Trust on:	
Petty Cash Fund, University.....	500.00	2023 G Street.....	\$31,500.00
Petty Cash Fund, Hospital.....	500.00	1016 13th Street.....	7,000.00
	<u>\$12,074.99</u>		
Accounts Receivable:		Accounts Payable	\$38,500.00
Students' Ledger, all Departments,		Interest Payable	350.00
1912-1913	\$2,449.48	Reserve for Repairs and Replacement:	393.75
Hospital Account, 1912-1913.....	1,504.81	Fire damage contents, Medical Building.....	1,215.40
Endowment Income Receivable Funds	3,877.00	Engineering Laboratory Building Fund:	2,720.00
	<u>7,831.29</u>	Contributions (Unexpended Balance).....	3,377.15
Library Books	37,000.00	Buildings and Grounds Fund Contributions:	342,005.02
Equipment	74,906.05	Unexpended Balance	4,821.13
Insurance:		Liability for Impairment of Endowment Funds:	18.51
Withdrawal Value of Perpetual Insurance Poli-		Principal and Accumulated Income, Schedule 1,	
cies	1,406.25	Department of Medicine Surplus:	
Real Estate:		As per Exhibit "C".....	
Medical Lot and Building.....	\$403,599.93	Department of Law Surplus:	
2023 G Street.....	\$32,500.00	As per Exhibit "D".....	
2023 G Street (3 lots ad-		Surplus Account:	
joining)	4,500.00	As per Exhibit "B".....	192,417.55
	<u>37,000.00</u>		
1016 13th Street.....	12,000.00		
	<u>452,599.93</u>		
	\$585,818.51		\$585,818.51

EXHIBIT "B."

SURPLUS ACCOUNT,

As at August 30, 1913.

Balance, as at September 1, 1912.....	\$178,070.15
<i>Add:</i>	
Transfer of Funds from Department of Medicine Surplus for purchase of Nurses' Home.....	5,000.00
Contribution to \$15,000 Fund during year ended August 30, 1913 (contribution applicable to payments made from General Funds liquidating Accounts Payable prior to August 31, 1910).....	883.34
Contribution to General Expense Fund (applicable to years 1910-1912).....	1,811.00
Contribution for rehabilitation of Corcoran Endowment Fund	10.00
Income from Investments:	
Endowment for General Purposes (applicable to prior years)	1,268.93
Old Accounts Collected:	
Students' Ledger.....	\$100.50
Hospital	17.25
	<hr/> 117.84
Net Income of University for year ended August 30, 1913, transferred from Revenue Account, Exhibit "E".	7,015.13
	<hr/> \$194,176.39
<i>Less:</i>	
Uncollectible Accounts, 1910-1912.....	\$1,375.07
Net Income Department of Medicine and Den- tistry for the year ended August 30, 1913, transferred to Department of Medicine Sur- plus, Exhibit "C".....	383.77
	<hr/> 1,758.84
Balance August 30, 1913.....	<hr/> \$192,417.55

EXHIBIT "C."

DEPARTMENT OF MEDICINE SURPLUS.

As at August 30, 1913.

Balance, as at September 1, 1912..... \$5,818.63

*Add:*Donation from Board of Lady Managers for purchase of
Nurses' Home..... 1,500.00Net Income Department of Medicine and Dentistry for
year ended August 30, 1913, Exhibit "H"..... 383.77Net Income University Hospital for year ended August 30,
1913, Exhibit "J"..... 4,101.80

\$11,804.20*Less:*Transfer of Funds for purchase of Nurses' Home, 1016
13th Street..... \$5,000.00

Uncollectible Accounts:

Department of Medicine, 1910-1912.. \$194.24

Hospital, 1911-1912..... 1,788.83

1,983.07

6,983.07

Balance August 30, 1913..... \$4,821.13

EXHIBIT "D."

DEPARTMENT OF LAW SURPLUS.

As at August 30, 1913.

Balance, as at September 1, 1912..... \$295.01

Less:

Uncollectible Accounts 1910-1911..... 276.50

Balance August 30, 1913..... \$18.51

EXHIBIT "E."

REVENUE ACCOUNT.

For the Year ended August 30, 1913.

<i>Expenses.</i>		<i>Income.</i>	
Department of Law, Exhibit "G"	\$170.54	Department of Arts and Sciences, Exhibit "F"	\$7,310.83
Maintenance Expenses:		Department of Medicine and Dentistry, Exhibit "H"	383.77
University Hall:		Contributions:	
Wages	\$1,743.50	Maintenance Fund, 1912-1916	\$8,750.00
Rent	1,463.00	General Expense from Departments:	
Heat and Light	1,431.85	Department of Arts and Sciences	\$6,662.67
Supplies and Expenses	648.64	Department of Law	5,538.02
Repairs	1,375.68	Department of Medicine and Dentistry	5,999.88
	<u>\$6,662.67</u>	University Hospital	500.00
Medical Hall:			<u>18,700.57</u>
Wages	\$1,284.50		<u>27,450.57</u>
Heat and Light	1,413.39	Income from Investments:	
Supplies and Expenses	521.85	Endowment for General Purposes, Exhibit "N"	1,876.61
Repairs	780.14	Income from Other Sources:	
	<u>3,999.88</u>	Graduation Fees	\$1,916.00
Law Hall:		Bonding Fees	36.00
Wages	\$257.00	Bank Interest	68.46
Rent	2,499.96	Matriculation Fees, National School of Pharmacy	80.00
Light	221.68	Miscellaneous	29.75
Supplies and Expenses	59.38		<u>2,130.21</u>
	<u>3,038.02</u>		
	<u>13,700.57</u>		

Administration Expenses:	
Salaries, Clerk Hire, etc.....	\$9,219.39
Stationery and Printing.....	1,458.33
Advertising	695.55
Postage	533.10
Telephone	351.57
Auditing	550.00
Commencement Expenses, etc.....	1,049.02
Taxes	301.32
Miscellaneous	326.22
Interest on Trust Notes.....	14,484.50
Expense Altering Building, 2023 G Street, etc.....	1,052.50
Net Income for Year ended August 30, 1913, trans- ferred to Surplus Account, Exhibit "B"	1,818.75
	7,015.13
	<u>\$39,151.99</u>

\$39,151.99

EXHIBIT "F."

DEPARTMENT OF ARTS AND SCIENCES.

For the Year ended August 30, 1913.

Income.

Tuition:

School of Graduate Studies.....	\$5,506.75	
Columbian College.....	23,005.72	
College of Engineering.....	13,259.74	
College of Political Sciences.....	2,919.87	
Teachers College.....	3,285.24	
		<u>\$48,037.32</u>

Matriculation:

School of Graduate Studies.....	\$125.00	
Columbian College.....	860.00	
College of Engineering.....	485.00	
College of Political Sciences.....	165.00	
Teachers College.....	170.00	
		<u>1,805.00</u>

Laboratory:

School of Graduate Studies.....	\$246.60	
Columbian College.....	2,063.05	
College of Engineering.....	667.94	
Teachers College.....	24.00	
		<u>3,001.59</u>
		1,488.00

Library Fees.....

Contributions:

Columbian College.....	\$115.00	
College of Political Sciences.....	5,405.00	
		<u>5,520.00</u>

Miscellaneous:

School of Graduate Studies.....	\$20.00	
Columbian College.....	38.00	
College of Engineering.....	4.00	
College of Political Sciences.....	10.00	
Teachers College.....	6.00	
		<u>78.00</u>
		<u>\$59,929.91</u>

Expenses.

Salaries	\$43,158.46	
Laboratory	1,433.70	
Books	588.68	
Stationery and Printing.....	125.94	
Postage	50.00	
Prize	15.00	
Miscellaneous	85.23	
Transferred to Department of Medicine, account of Heat and Light, Laboratory..	\$500.00	
Transferred to General Funds.....	6,662.67	
	<u>7,162.67</u>	
		<u>52,619.08</u>
Net Income transferred to Revenue Account, Exhibit "E"		\$7,310.83

EXHIBIT "G."

DEPARTMENT OF LAW.

For the Year ended August 30, 1913.

Income.

Tuition	\$26,857.50
Matriculation	500.00
Library	895.00
Contribution for Ellsworth Prize.....	25.00
Income from Special Fund.....	101.73
Miscellaneous	18.00
	<hr/>
	\$28,397.23

Expenses.

Salaries	\$20,440.99
Library	1,104.35
Stationery and Printing.....	640.20
Telephone	90.32
Postage	114.50
Advertising	502.20
Prizes	50.00
Miscellaneous	87.19
	<hr/>
	\$23,029.75
Transferred to General Funds.....	5,538.02
	<hr/>
	28,567.77

Net Loss transferred to Revenue Account, Exhibit "E". \$170.54

EXHIBIT "H."

DEPARTMENT OF MEDICINE AND DENTISTRY.

For the Year ended August 30, 1913.

Income—Medicine.

Tuition	\$13,703.75	
Instructions to Veterinary Students.....	578.16	
Matriculation	310.00	
Laboratory	188.21	
Library	403.00	
Rent of Microscopes.....	437.75	
Rent of Hall.....	25.00	
		<hr/> \$15,645.87

Expenses.

Salaries	\$8,047.76	
Laboratory	1,289.91	
Library	83.31	
Advertising	180.38	
Stationery and Printing.....	572.04	
Telephone	258.11	
Traveling, Dues, etc.....	262.88	
		<hr/> \$11,594.39

Transferred to General Funds..... \$5,499.88

Less:

Transferred from Department of Arts and Sciences.....	500.00	
	<hr/> 4,000.88	
		<hr/> 16,594.27

Net Loss Department of Medicine.....	\$948.40	
Net Income Department of Dentistry, transferred from Ex- hibit "I".....	1,332.17	
	<hr/>	

Net Income Department of Medicine and Dentistry,
transferred to Revenue Account, Exhibit "E"..... \$383.77

EXHIBIT "I."

DEPARTMENT OF DENTISTRY.

For the Year ended August 30, 1913.

Income.

Tuition	\$6,576.50	
Matriculation	150.00	
Laboratory	155.94	
Rent of Microscopes.....	203.00	
Infirmary	900.52	
		<u>\$8,046.05</u>

Expenses.

Salaries	\$4,294.25	
Infirmary	1,044.47	
Laboratory	31.54	
Supplies, etc.....	108.23	
Stationery and Printing.....	181.75	
Advertising	58.34	
Books	46.80	
Miscellaneous	448.50	
		<u>\$6,213.88</u>
Transfer to General Funds.....	500.00	
		<u>6,713.88</u>

Net Income, transferred to Department of Medicine
and Dentistry, Exhibit "H" \$1,332.17

EXHIBIT "J."

UNIVERSITY HOSPITAL.

For the Year ended August 30, 1913.

Income.

Pay Patients:	
Collected	\$53,029.30
Uncollected	1,504.81
	<hr/> \$54,534.11

Expenses.

Salaries	\$13,737.30
Table Supplies	16,958.46
Medical and Surgical Supplies	5,701.04
Electricity and Gas	2,311.82
Fuel	1,435.45
Laundry	1,731.64
Repairs	1,691.50
Miscellaneous Supplies	1,760.38
Ice	1,245.49
Rent, Nurses' Home	1,000.00
Telephone	638.21
Uniforms	525.00
Stationery and Printing	440.65
Repairs, Renewals, and Replacements	119.18
Insurance	127.50
Hauling	112.00
Miscellaneous	387.69
	<hr/> \$40,932.31
Transfer to General Funds	500.00
	<hr/> 50,432.31
Net Income, transferred to Department of Medicine Surplus, Exhibit "C"	\$4,101.80

EXHIBIT "K."
STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS.
For the Year ended August 30, 1913.

<i>Receipts.</i>		<i>Payments.</i>	
Students' Receipts:		Expenses and Pay Rolls:	
Department of Graduate Studies..	\$6,011.89	Department of Graduate Studies.	\$3,186.70
Department of Arts and Sciences..	26,610.61	Department of Arts and Sciences.	20,141.93
Department of Engineering.....	14,994.07	Department of Engineering.....	11,506.59
Department of Political Sciences..	2,875.29	Department of Political Sciences..	7,098.17
Department of Teachers College..	3,671.11	Department of Teachers College.	1,939.21
Department of Law.....	28,111.25	Department of Law.....	23,031.00
Department of Medicine.....	15,783.61	Department of Medicine.....	11,694.39
Department of Dentistry.....	6,876.42	Department of Dentistry.....	5,210.41
Graduation Fees.....	1,906.00	Arts and Sciences Library.....	1,568.81
Bonds.....	21.00		
Diplomas.....	10.00		
		University Hospital.....	\$85,386.21
University Hospital.....	\$106,871.25	Dental Infirmary.....	49,935.81
Dental Infirmary.....	52,765.73		1,044.47
	960.52	Students' Ledger:	
Contributions:		Refunds to Students.....	2,485.58
15,000 Dollar Fund.....	\$883.34		
Political Sciences Fund.....	5,405.00	Maintenance of Buildings:	
General Expenses, 1910-1911-1912.	1,811.00	University Buildings.....	\$5,635.37
General Expenses, 1912-1916.....	3,750.00	Law Hall.....	3,040.00
50,000 Dollar Building and Ground		Medical Hall.....	3,996.38
Fund.....	3,494.00	Political Sciences Hall.....	1,800.00
Engineering Laboratory Building			
Fund.....	2,725.00	General Expense.....	14,472.65
		Stationery and Printing.....	11,993.42
Students' Fees, 1910-1912.....	23,068.34	Advertising.....	1,470.83
Old Students' Fees Collected.....	988.44	Postage.....	695.55
Old Hospital Accounts Collected.....	100.59	Expense Altering University Buildings, etc.....	533.10
	17.25		1,818.75

REPORT OF THE TREASURER.

Hospital Accounts, 1911-1912.		1915-48	
Rent of Fraternity Rooms.....		215.48	
Miscellaneous Income (Departments):		283.00	
Department of Arts and Sciences..	\$100.00		
Department of Medicine.....	800.16		
Department of Law.....	29.13		
Department of Political Sciences..	950.00		
Department of Dentistry.....	50.00		
Donation, Board of Lady Managers for Purchase of Nurses' Home.....		2,028.29	
Insurance Collected Account of Fire:		1,500.00	
Damage Medical Building and Contents.....		2,669.00	
Return of Insurance Deposit.....		325.80	
Matriculation Fees, National College of Pharmacy.....		80.00	
Transfer of Endowment Income.....		145.47	
Petty Cash Fund Returned.....		100.00	
Rebate, Use of Continental Hall.....		24.38	
Bank Interest.....		68.46	
Sale of Stationery.....		15.00	
Sale of Microscopes.....		40.00	
Sale of Typewriter.....		10.00	
Donation for Sociology Prize.....		15.00	
Donation for Intercollegiate Debate.....		8.95	
Miscellaneous.....		24.64	
Total Receipts.....		\$192,325.50	
Cash Balance, September 1, 1912:			
Riggs National Bank.....	\$2,125.82		
Commercial National Bank.....	1,431.83		
		3,557.65	
		\$195,883.24	

EXHIBIT "L."

SUMMARY OF ENDOWMENT FUNDS.

As at August 30, 1913.

	Debit.	Credit.
Endowment Funds as at August 31, 1912..	.....	\$123,295.91
<i>Less:</i>		
Law Department Fund, transferred to Special Funds.....	.....	2,028.75
		<u>\$121,267.16</u>
Additions to Endowment Funds:		
Withington Scholarship Fund.....	.....	379.93
Davis Scholarship Fund.....	.....	40.00
Corcoran Endowment Fund.....	.....	10.00
		<u> </u>
Endowment Funds represented by Invest- ments on August 30, 1913, as per Sched- ule No. "2".....	.....	\$121,697.09
Endowment Fund Investments:		
Investment of Endowment Funds at Au- gust 30, 1913, as per Schedule No. "3"..	\$121,326.15	.....
Uninvested Cash at August 30, 1913:		
Eleanor J. Cooper Fund.....	\$29.17	
Withington Scholarship Fund....	82.55	
Davis Scholarship Fund.....	40.00	
Congressional Professorship of English Fund.....	51.52	
Woodbury Hospital Endowment Fund	83.33	
L. M. Tree Hospital Endowment Fund	74.37	
Corcoran Endowment Fund.....	10.00	
	<u>370.94</u>	
	<u>\$121,697.09</u>	<u>\$121,697.09</u>

EXHIBIT "M."
SPECIAL FUNDS.

As at August 30, 1913.

	Debit.	Credit.
<i>Law Department Fund:</i>		
Investment of Law Department Surplus, the income to be used for the benefit of the Law Department.....		\$2,028.75
<i>H. Y. Denman Fund:</i>		
Bequest of Hampton Y. Denman for the use and benefit of the Law Department Realized from mining securities, received under the bequest, on distribution of capital of mining companies.....		452.65
<i>Mary Emma Jacques Legacy:</i>		
Bequest of Mary Emma Jacques for ben- efit of University, one-half to be used for Medical School and Hospital and one-half for the Law Department, as Trustees may direct.....		7,690.52
Total Special Funds at August 30, 1913.....		\$10,171.92
<i>Special Funds Investments:</i>		
<i>Law Department Fund:</i>		
Potomac Electric Power Co. \$2,000 5% Consolidated Mortgage Gold Bonds, due 1936.....	\$2,028.75	
<i>Mary Emma Jacques Legacy:</i>		
Norfolk and Washington Steamboat Company \$500 5% Coupon Trust Bond, due 1931.....	\$516.25	
The Metropolitan Railroad Co. \$1,000 5% First Mort- gage Gold Bond, due 1925..	1,080.83	
U. S. Steel Corporation \$3,000 5% Sinking Fund Gold Cou- pon Bond, due 1963.....	3,130.00	
Washington Railway & Elec- tric Co. \$1,000 4% Consoli- dated Mortgage 50-Year Gold Bond, due 1951.....	875.33	
Washington Gas Light Co. \$1,000 5% General Mortgage 50-Year Gold Bonds, due 1960	1,128.33	
	6,730.74	
Uninvested Cash at August 30, 1913:		
H. Y. Denman Fund.....	\$452.65	
Mary Emma Jacques Legacy....	959.78	
	1,412.43	
	\$10,171.92	\$10,171.92

EXHIBIT "N."
 ENDOWMENT AND SPECIAL FUNDS, INCOME AND EXPENSES.
 For year ended August 30, 1913.

	Balance Aug. 31, 1912.		Year ended Aug. 30, 1913.		Balance Aug. 30, 1913.	
	Debit.	Credit.	Expense.	Income.	Debit.	Credit.
Endowment Funds:						
Corcoran Endowment Fund....	\$1,078.59	.....	\$1,370.31	.....	\$2,448.90
Powell Scholarship Fund.....	3,317.17	\$1,125.85	1,225.00	.....	3,416.32
Ordronaux Prize Fund.....	143.16	150.00	203.63	.....	196.79
Eleanor J. Cooper Fund.....	1,175.49	.....	468.72	.....	1,644.21
E. K. Cutter Prize Fund.....	\$75.00	.....	50.00	50.15	\$74.85	.....
Elton Professorship Fund.....	524.50	.....	219.37	.....	743.87
Fitch Prize Fund.....	6.40	50.00	11.84	31.76	.....
Walsh Prize Fund.....	38.15	.....	15.05	.....	53.20
National Park Seminary Hos- pital Endowment.....	100.31	.....	25.07	.....	125.38
Davis Prize Fund.....	25.51	10.00	35.10	.....	50.61
Alumni Hall Fund.....	142.61	145.47	2.86	.....	.....
Withington Scholarship Fund....	1.37	19.05	.....	17.68
Davis Scholarship Fund.....	86.00	.....	.....	2.01	77.99	.....
Farnham Scholarship Fund.....	39.45	40.00	50.15	.....	49.60
M. M. Carter Scholarship Fund....	39.45	40.00	50.15	.....	49.60
M. L. Stone Scholarship Fund....	78.89	40.00	100.29	.....	139.18
Staughton & Elton Prize Fund....	29.72	.....	25.07	.....	54.79
Ruggles Prize Fund.....
Congressional Professorship of English Fund.....	30.00	.....	.....	.....	30.00	.....
Woodbury Hospital Endowment....	1.00	.....	286.93	.....	287.93
L. M. Tree Hospital Endowment....	3.32	407.00	480.53	.....	76.85
	18.02	425.00	501.42	.....	94.44

Chapman Hospital Endowment..	84.83	.....	38.45	.....	123.28
Gardiner G. Hubbard Memorial	.....	50.00	50.15	.....	0.15
Prize Fund .....	.....	.....	.....	.....	.....
J. MacBride Sterrett Memorial	1.00	.....	10.03	.....	11.03
Prize Fund .....	.....	.....	.....	206.25	.....
H. H. Carter Scholarship Fund.	.....	.....	.....	.....	.....
Special Funds:	.....	.....	.....	.....	.....
Law Department Fund.....	.....	.....	101.73	.....	101.73
	\$391.25	\$6,847.57	\$5,343.06	\$420.85	\$9,685.54
Less Debit Balances.....	.....	391.25	2,534.69	.....	420.85
Net Balances.....	.....	\$6,456.32	\$2,808.37	.....	\$9,264.69

SUMMARY.

Unexpended Income at August 31, 1912.....	\$6,456.32
Income for Year:	
Endowment Funds:	
Income for General Purposes.....	\$1,876.61
Income for Designated Purposes..	3,364.72
	<u>\$5,241.33</u>
Special Funds:	
Income for Designated Purposes.....	101.73
	<u>5,343.06</u>
Total.....	\$11,799.38
Expenses for Year:	
Endowment Funds:	
Expenses for Designated Purposes.....	2,534.69
	<u>Unexpended Income at August 30, 1913.....</u>
	<u>\$9,264.69</u>

SCHEDULE "I."

IMPAIRMENT OF ENDOWMENT FUNDS.

As at August 30, 1913.

Fund.	Impairment principal.	Impairment income.
Congressional Endowment Fund.....	\$63,872.93	.....
Poindexter Endowment Fund.....	12,525.56	.....
Forty Thousand Dollar Fund.....	26,891.46	.....
Elton Professorship Fund.....	10,133.19	.....
Syms Legacy.....	1,500.00	.....
Withington Scholarship Fund.....	1,573.20	.....
Walker Scholarship Fund.....	2,500.00	.....
Morehouse Scholarship Fund.....	1,500.00	.....
Davis Scholarship Fund.....	1,000.00	.....
Powell Scholarship Fund.....	.....	22,272.00
Mary Lowell Stone Scholarship Fund.....	.....	775.38
Ruggles Prize Fund.....	500.00	.....
Fitch Prize Fund.....	764.00	914.83
Cutter Prize Fund.....	.....	75.14
Walsh Prize Fund.....	.....	126.58
Ordronaux Prize Fund.....	701.53	230.47
Corcoran Endowment Fund.....	189,158.75	.....
H. H. Carter Scholarship Fund.....	5,000.00	.....
Total at August 31, 1910.....	\$317,620.62	\$24,394.40
Less Donation February 10, 1913, for Rehabilitation of the Corcoran Endowment Fund.....	10.00	.....
Total at August 30, 1913.....	\$317,610.62	\$24,394.40

SUMMARY OF IMPAIRMENTS.

Principal	\$317,610.62
Accumulated Income.....	24,394.40
	<u>\$342,005.02</u>

SCHEDULE "2."

ENDOWMENT FUNDS REPRESENTED BY INVESTMENTS.

As at August 30, 1913-

Congressional Endowment Fund:

Grant by Congress of land in the District of Columbia to be sold and the proceeds invested; the income "To be applied in aid of other revenues of the said college, to the establishment and endowment of such professorships therein as now are, or hereafter shall be established by the said trustees".....

\$21,530.00

Elton Professorship Fund:

Bequest of Romeo Elton, to be applied for the foundation of a professorship of mental and moral philosophy.....

4,375.00

Farnham Scholarship Fund:

Gift of Mrs. Robert Farnham to establish a scholarship in the College.....

1,000.00

Maria M. Carter Scholarship Fund:

Gift of Mrs. Maria M. Carter to establish a scholarship for some deserving young man.....

1,000.00

Admiral Powell Endowment:

Bequest of Admiral Levin M. Powell of land in the District of Columbia; the income to be devoted as far as the same will go, under such regulations as the trustees or overseers may seem best, to the free education of such young men that may desire to take advantage of the said endowment by way of their preparation for entrance into the Naval Academy at Annapolis, Maryland, etc.

18,923.00

Mary Lowell Stone Scholarship Fund:

Gift of Mary Lowell Stone to establish a scholarship fund to be paid to needy women in the Corcoran Scientific School at the discretion of the dean of said school.....

2,000.00

Staughton and Elton Prize Fund:

Gift of Rev. Wm. Staughton of \$250.00 to found a prize for the encouragement of classical literature in the Columbian College to be called the Staughton Prize...
 Gift of Rev. Dr. Romeo Elton of \$250.00 toward the foundation of a prize fund for the encouragement of classical study in the Columbian College.....

500.00

Willie E. Fitch Prize Fund:

Gift of James E. Fitch to found a gold medal with the income of said fund to be assigned under the auspices of the projected Scientific School..... \$236.00

E. K. Cutter Prize Fund:

Bequest of Marion Kendall Cutter to be invested; the income to be applied for the purchase of an annual prize for excellence in the study of English..... 1,000.00

Thomas F. Walsh Prize Fund:

Gift of Thomas F. Walsh; the income to be applied for an annual gold medal in Irish History..... 300.00

Ordronaux Prize Fund:

Bequest of Dr. John Ordronaux for the establishment of biennial prizes in the Law and Medical Departments.. 4,000.97

Corcoran Endowment Fund:

Gift of Wm. W. Corcoran to found a permanent fund, of which the interest alone shall be applied for the purposes of the College..... \$28,706.17

Addition:

Donation for the rehabilitation of the Corcoran Endowment Fund..... 10.00

28,716.17

Eleanor J. Cooper Fund:

Bequest of Eleanor J. Cooper; the income to be devoted to the investigation of the nature of the malarial poison arising from sewer gas and antidote thereof; to be perpetual..... 9,347.92

National Park Seminary Endowment:

Gift of the National Park Seminary for the endowment of a bed in the University Hospital..... 500.00

Davis Prize Fund:

Gift of Hon. Isaac Davis to establish a fund; the income to be distributed annually to such members of the senior class as shall have made the greatest progress in elocution since their connection with the College..... 700.00

Woodbury Hospital Endowment:

Bequest of Ellen C. de Q. Woodbury for the reception and treatment of female patients by the hospital belonging to or connected with the University..... 9,583.33

Laura M. Tree Hospital Endowment:

Bequest of Judge Lambert Tree to establish one or more beds in perpetuity in "The Columbian University Hospital," to be known as the "Laura M. Tree bed or beds"	\$10,000.00
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Congressional Professorship of English Fund:

Proceeds from sale of Congressional Grant to be invested and the income applied as shown under Congressional Endowment Fund.....	6,295.77
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Gardiner G. Hubbard Memorial Prize Fund:

Gift of Gertrude M. Hubbard to establish an endowment; the income to be given annually to that member of the graduating class who has during four years maintained a high standing in American History.....	1,000.00
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J. MacBride Sterrett, Jr., Memorial Medal Fund:

Gift of J. MacBride Sterrett to establish a fund; the income to provide a gold medal annually awarded to that student taking course I in Physics who obtains the highest average in a special examination on a given subject and in the writing of an essay on an assigned topic	200.00
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Davis Scholarship Fund:

Gift of Hon. Isaac Davis to establish a Scholarship Fund, the annual income to be appropriated to some student pursuing his collegiate course in said college. Addition:	
Gift of Hadleigh Marsh, reimbursing fund.....	40.00

Withington Scholarship Fund:

Subscription of loan to Columbian College for the purpose of endowing a scholarship to be named the Withington Scholarship. Addition:	
Proportion of proceeds on settlement of estate of John Withington, deceased.....	379.93
	<hr/>
	\$121,697.09

SCHEDULE "3."

ENDOWMENT FUND INVESTMENTS.

As at August 30, 1913.

Stocks.

American Telephone and Telegraph Co.:	
6 shares of stock.....	\$708.00
Washington Sanitary Improvement Co.:	
130 shares of stock.....	1,300.00

Bonds.

Chicago, Rock Island and Pacific Railway Co.:	
\$24,000 4% First and Refunding Mortgage Bonds, due 1934	20,959.17
Chicago, Rock Island and Pacific Railway Co.:	
\$5,000 4% Collateral Trust Bonds of 2002.....	4,118.75
Chicago, Rock Island and Pacific Railway Co.:	
\$5,000 4% Collateral Trust Bonds of 2002.....	4,000.97
Riggs Realty Co. of New York:	
\$3,000 Coupon Bonds secured by Deed of Trust on property situated at the southeast corner of 15th and G Streets.....	3,000.00
City of New Brunswick, New Jersey:	
\$3,000 4% Sinking Fund Bonds.....	3,000.00
City of Medford:	
\$3,000 4% Sewerage Loan Bonds.....	3,000.00
Potomac Electric Power Co.:	
\$9,000 5% Consolidated Mortgage Coupon Bonds of 1936	8,088.75
Columbia Railway Co.:	
\$500 5% Extension Mortgage Gold Coupon Bonds of 1914	505.03
Potomac Electric Power Co.:	
\$1,000 5% Consolidated Mortgage Coupon Bonds of 1936	1,000.00
Norfolk and Washington Steamboat Co.:	
\$200 5% Coupon Bonds of 1931.....	208.00
Austen Coal and Coke Co.:	
\$1,000 5% Consolidated Mortgage Gold Bonds of 1926	1,000.00
Washington Railway & Electric Co.:	
\$500 4% Consolidated Mortgage 50-year Gold Bond, due 1951.....	431.25

Potomac Electric Power Co.:	
\$2,000 5% Consolidated Mortgage Gold Bonds, due 1936	\$2,040.00
Potomac Electric Power Co.:	
\$3,000 5% Consolidated Gold Mortgage Coupon Bonds, due 1936.....	2,906.25
Virginia Railway Co.:	
\$300 5% First Mortgage Gold Bonds, Series "A," due 1962	297.38

Trust Notes.

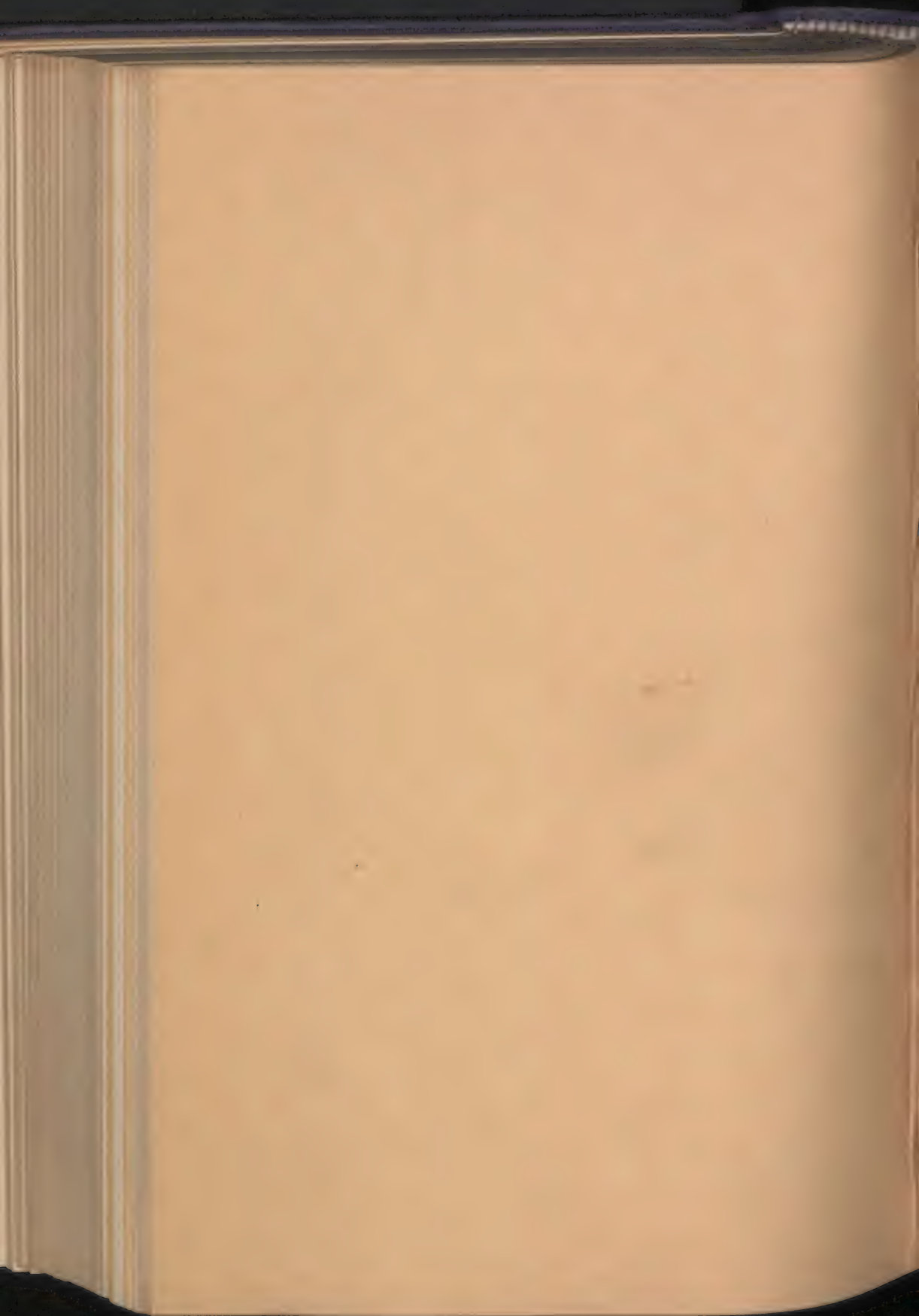
Thomas R. Marshall Note:	
Note secured by deed of trust on part of lot 5, square 253, and lot 70, block 30, in Columbia Heights.....	5,000.00
Lewis Spectre Note:	
Note secured by deed of trust on lot 64, square 1017..	200.00
Washington Sanitary Improvement Co. Notes:	
Real Estate Notes as follows: 12 notes of \$1,000; 2 notes of \$2,000.....	16,000.00
Wm. S. and Susan L. Dewhirst Note:	
Note secured by deed of trust on lot 9, square 243....	500.00
Agnes Plunkett Notes:	
Notes secured by deed of trust on part of lot 12, square 11, in Meridian Hill.....	200.00

Real Property.

Real Property, 1707 I Street N. W.....	18,923.00
Real Property, Burgdorf Lot (Sublot 148, square 672)....	1,350.00
Real Property, Government Grant:	
Lot 8, square 13.....	2,565.00
Lot 10, square 13.....	2,218.00
Lot 12, square 13.....	4,588.00
Lot 13, square 13.....	3,924.00
Lot 9, square 16.....	2,224.00
Lot 8, square 23.....	3,055.00
Lot 2, square west of 23.....	1,069.00
Lot 5, square 87.....	1,896.00

\$121,326.15
Summary.

Stocks	\$2,008.00
Bonds	55,606.15
Trust Notes.....	21,900.00
Real Property.....	41,812.00
	<hr/>
	\$121,326.15



The George Washington University

REPORT OF THE PRESIDENT

JANUARY, 1913



WASHINGTON, D. C., January 8, 1913.

*To the Chairman of the
Board of Trustees,
George Washington University.*

SIR:

I have the honor to present my report on the affairs of the University for the year ending December 31st, 1912.

I regret to announce the death of the Dean of Teachers College, Dr. Williston S. Hough. This occurred on the 18th of September, 1912. Dr. Hough filled the position of Professor of Philosophy in Columbian College as well as Dean of Teachers College. Dean Hough's preparation for his career had been most comprehensive, his work at this University was highly satisfactory and his efforts for the advancement and expansion of Teachers College were bearing fruit when he was suddenly taken away in the prime of his life. The Board of Trustees have already given expression to their sense of the loss which has befallen the University and I can only add in a formal manner my personal appreciation of his services to the cause of education and the great personal loss due to his departure from our midst.

The prescribed courses and departments of the University were carried on from the date of the last report until the end of the academic year, June 5th, 1912, there being a maximum registration throughout the year 1911-1912 in all departments of 1270 students. (The largest number of students in attendance at any one time was 1189 on November 11, 1911.)

The distribution of students in the various departments of the University for 1911-1912, giving the maximum registration, was as follows:

Graduate Studies.....	76	
Columbian College	335	
College of Engineering and Mechanic Arts	153	
College of the Political Sciences.....	91	
Teachers College	84	
Department of Law	306	
Department of Medicine	92	
Department of Dentistry	50	
National College of Pharmacy.....	66	
College of Veterinary Medicine.....	46	
		1,299
Duplicate Names		29
		1,270

At the Midwinter Convocation, February 21, 1912, the following degrees were conferred:

COLUMBIAN COLLEGE:

Bachelor of Arts..... 3

COLLEGE OF ENGINEERING AND MECHANIC ARTS:

Bachelor of Science in Civil Engineering... 1

DEPARTMENT OF LAW:

Bachelor of Law..... 1

Bachelor of Laws..... 3

Master of Patent Law..... 1

GRADUATE STUDIES:

Master of Science..... 1

At the Commencement of the University held June 5th, 1912, the following degrees were conferred:

COLUMBIAN COLLEGE:

Bachelor of Arts..... 27

Bachelor of Science in Chemistry..... 4

COLLEGE OF ENGINEERING AND MECHANIC ARTS:

Bachelor of Science in Architecture..... 1

Bachelor of Science in Civil Engineering... 7

COLLEGE OF ENGINEERING AND MECHANIC ARTS—Con.

Bachelor of Science in Electrical Engineering 2

Bachelor of Science in Mechanical Engineering 2

TEACHERS COLLEGE:

Bachelor of Arts and Teachers Diploma... 7

Teachers Diploma 2

COLLEGE OF THE POLITICAL SCIENCES:

Bachelor of Arts..... 2

Master of Diplomacy 2

DEPARTMENT OF LAW:

Bachelor of Law 6

Bachelor of Laws..... 29

DEPARTMENT OF MEDICINE:

Doctor of Medicine..... 34

DEPARTMENT OF DENTISTRY:

Doctor of Dental Surgery..... 5

NATIONAL COLLEGE OF PHARMACY:

Doctor of Pharmacy..... 7

COLLEGE OF VETERINARY MEDICINE:

Doctor of Veterinary Medicine..... 18

GRADUATE STUDIES:

Mechanical Engineer 1

Electrical Engineer 1

Master of Arts and Master's Diploma in
Education 1

Master of Arts..... 2

Doctor of Philosophy 2

The address at the Commencement Exercises was delivered by John Randolph Dos Passos, his subject being "Political Introspection."

After the opening of the academic year 1912-1913, on October 31, 1912, the following degrees were conferred:

COLLEGE OF THE POLITICAL SCIENCES:

Bachelor of Arts..... 1

DEPARTMENT OF LAW:

Bachelor of Laws..... 3

DEPARTMENT OF MEDICINE:

Doctor of Medicine..... 2

DEPARTMENT OF DENTISTRY:

Doctor of Dental Surgery..... 3

On February 1, 1912 the University received notice to vacate the houses 1528, 1530, 1532, 1534, 1536 and 1538 I Street, where the greater part of the Department of Arts and Sciences had been housed. Suitable buildings, 2023 and 2024 G Street, were secured and changes and repairs made to house properly the Department, except that the Chemical Laboratory, the School of Graduate Studies, and the College of the Political Sciences continued in their old quarters. From February 26th to April 1st all books, machinery, and furniture that could be spared were moved to 2023 and 2024 G Street. The final moving began on April 5th and was finished by April 12th; and the work of this portion of the University fully resumed. The building, 2023 G Street, formerly used as a school, was found to be satisfactory after considerable alterations had been made, and was acquired by the University June 6, 1912.

The urgent need of the University for the establishment of the greater part of the Department of Arts and Sciences in a building owned by the University, has thus been met to a large degree. The building now contains the University Library, all of the general offices, except that of the Treasurer, and the offices of the Deans of the various undergraduate schools comprised in the Department of Arts and Sciences. The schools in that department, comprising the Columbian College, which name has been resumed for the College of Arts and Sciences, and the College of Engineering, are now practically within this edifice. The office of the Treasurer as well as various classes of the Teachers College and the College of the Political Sciences are placed in 2024 G Street opposite this main building.

The space in the rear of the University Building, 2023 G Street, gives an area on which there should be established a mechanical laboratory for the College of Engineering. The machinery for this laboratory has not been set up since the

removal from 15th and H Streets. Efforts are now being made to raise the necessary funds for a suitable building with an encouraging outlook. This is an immediate need which I commend to the friends of the University, one which was mentioned also in my report of last year.

The University opened its present academic year 1912-1913 on the 25th of September, 1912, and soon attained an increased total registration over that of last year.

A Division of Architecture was added to the College of Engineering under a guarantee fund from the Architects of the District of Columbia; the entry of students, however, has been sufficiently great in number to render the use of the fund unnecessary and to re-establish, I hope without future uncertainty, this highly desirable course of instruction, for which our capital city is eminently suitable as a place possessing not only many and varied examples of public and private architecture, but also in the National Library, large and valuable collections bearing upon architecture.

THE COLUMBIAN COLLEGE.

The registration of Columbian College for the current year is the largest in its history. Including all students registered to December 14th, it amounts to 330. The Freshman class for the year numbers 73. The special student class contains a considerable number of very desirable students as the following analysis made by Dean Wilbur, of that College, will suggest; the remarks that follow are from his annual report:

Special students having full degrees 13

Special students having full entrance requirements. 34

Special students not fully qualified 67

"Of this last class many would be conditioned only to the extent of from one to three units. It has been often noted by those studying Washington conditions that the number of students desiring special courses because of special duties in the Government Service, is relatively large. Such students are never a drag to the classes, but usually an incentive."

Dean Wilbur also says, "It is entirely practicable for us to maintain faithfully the standard entrance requirements to the College, because our students come very largely from the Washington High Schools. The standard of these schools is high and their graduates are well prepared for College work."

We need an enlarged teaching staff for Columbian College, especially a completion of endowments for the Professorship of English and Mathematics. The latter endowment has been undertaken by the Alumni of the University and should be pushed through to successful completion.

COLLEGE OF ENGINEERING AND MECHANIC ARTS.

The total registration to December 16th in the College of Engineering and Mechanic Arts is 184. The number of students who are registered as architectural, either regular or special, is 34. There are 89 new students, 38 of them admitted to regular standing, and 51 as special students. Of the 38 regular students 11 were admitted to advanced standing on evidence of work done at other institutions of a college grade, and 27 were admitted from secondary schools. Dean Hodgkins of this College reports that the re-establishment of the work in architecture is a success. It is very desirable that the building for a mechanical laboratory be started in time to have it ready for use next session.

COLLEGE OF THE POLITICAL SCIENCES.

The total number of students in the College, on December 7, 1912, was 52, which represents a considerable falling off from the registration of the previous year. The Dean of the College, Dr. H. Parker Willis, is on leave for one year from the University, his place being taken by Acting Dean, C. W. A. Veditz. The subscriptions which have maintained the College lapse this year and this fact in connection with the reduced student attendance makes it a matter for decision as

to the discontinuance of the College as an entity and its merging with Columbian College. The discontinuance of the College will be a matter of deep regret, as it has in its short life done excellent work in preparation for the consular, diplomatic, and other services of our government. It is to be presumed that the entrance requirements for these services will be maintained in the future and that constant preparation will be needed for those desirous of following a career under the government. We have already a number of graduates of excellent record in these services, and we rank as the second institution in the country as a source of supply for the diplomatic and consular services.

TEACHERS COLLEGE.

Teachers College, which was in charge of the late Dean Hough, is now conducted by Professor W. C. Ruediger as Acting Dean. The admission statistics up to December 15th, 1912, are as follows:

Admitted to regular standing:

Men	7	•
Women	70	
	— 77	

Admitted as special students:

Men	1	
Women	7	
	— 8	

Total 85

The distribution of work in this college indicates a close relationship with the other divisions of the Department of Arts and Sciences especially with Columbian College. "The preparation for teaching includes the pursuit of academic, as well as technical professional subjects. These two types of subject should, and usually are, pursued abreast. Students should logically devote the freshman and sophomore years to academic work taking psychology and logic, and perhaps

sociology and ethics, in preparation for the professional subjects, and then pursue the professional subjects alongside of additional academic subjects in the junior and senior year. This enables a student to earn both the Bachelor of Arts degree and the Teacher's Diploma in four years."

It is earnestly hoped, as is recommended by the Acting Dean, that there may be in the near future a model, practice and experimental school established in connection with Teachers College. "It is needed," as he well says, "to give the students examples of efficient teaching, to give them an opportunity to gain practical experience, and it is needed especially by the faculty to exemplify the application of educational principles and to make advances in educational organization and practice."

SCHOOL OF GRADUATE STUDIES.

The registration in the School of Graduate Studies in the Academic year 1911-12, was 76; 6 as students in attendance; 4 as candidates for the C. E. degree, 2 for the E. E., 2 for the M. E., 9 for the M. S., 18 for the M. A., and 36 for the Ph. D.,—one of these last a duplicate, being also registered for the M. A. degree. The registration for the current year on December 7, 1912, was 77 as compared to 48 on the same date of the preceding year—one more than the total registration of that year.

There were graduated in 1911-12 one candidate for the M. E. degree, one for the E. E., one for the M. S., three for the M. A., and three for the Ph. D.

Dean Munroe speaks of the efforts continually being made to establish a National University in Washington. "Scrutiny," he says, "of each of these measures will reveal that at least in the recent years the alleged reasons for this legislation is the development of graduate work through which the rich resources of Washington may be made available to research students." He says, "During the past year the campaign for the establishment of a National University in Washington, by

outsiders, has been active. The most significant events connected with the campaign have been the articles published in 'Science' by President Charles R. Van Hise of the University of Wisconsin, entitled 'A National University, a National Asset; an Instrumentality for Advanced Research' 36 (N. S.), 193-201, August 16, 1912; by President Edmund J. James of the University of Illinois, entitled 'The National University' 36 (N. S.), 202-210, August 16, 1912; and by Willet M. Hays, Assistant Secretary, U. S. Department of Agriculture, entitled 'A National University' 36 (N. S.), 723-729, November 29, 1912. Joined to these publications is the action of the Association of Presidents of Agricultural and Mechanical Colleges, established under the Morrill Act, and a bill introduced by Mr. Carlin, designed to carry into effect the desires of this aggregation of Presidents. * * * * *

"The articles by Van Hise and James joined with the report of President Hadley of Yale, entitled 'Facilities for Study and Research in the offices of the United States Government at Washington,' Bulletin No. 1, 1909, U. S. Bureau of Education, are of serious importance to the officials of the George Washington University, and the contents of these documents should be closely considered by all responsible officials. * * * *

"This University has for years consistently maintained that Washington offers unique advantages for University development and it has through years published this in its literature and set it forth in addresses made by members of its faculties. It is a proper cause for satisfaction to learn that President Hadley, in his official report, confirms every claim made by this University which he touches upon, though he does not, since he obviously could not, find within the government an organization through which the resources of Washington might be made accessible to research students, and he would therefore leave them unused and unavailed of, though the advantage which might accrue to the government, and to the people of this country, through the utilization of this accumulated material could be very great, possibly beyond measure."

* * * * *

"It is my opinion that the responsible officials of this University should let it be known that this University has for twenty years been performing all the duties and has fulfilled all the obligations that each and all of the measures providing for a National University call for, and that it has in this service been limited in its performance of its obvious duty only by the limited funds at its command. For any reasonable person must admit that, where the machinery for carrying a project into effect exists and is operative, it would be not only unwise, but foolish, to duplicate it."

It is impossible for anyone to deny that Dean Munroe is right in calling needless duplication unwise. It would be indeed surprising if the project, seriously advanced, to transport the graduates of institutions elsewhere to and from Washington would effectively meet the movement for the use and development of the facilities and educational advantages of the National Capital. Certainly the National Government should not add to its financial burdens a peripatetic institution of this nature, while on the part of the graduate students a natural disinclination is likely to exist against being physically and mentally harnessed to such a condition of scholastic servitude. I earnestly urge the friends of higher education throughout the country to give effective support to a graduate school already existing for the very purpose of satisfying that want so emphatically recognized by authorities in the educational world. We have the necessary organization under an exceptionally favorable charter, we are nonsectarian and without political bias. All we need is money which can properly be used for graduate work. Conscience and policy alike forbid us to foster our graduate school at the cost of our undergraduate work.

DEPARTMENT OF LAW.

The work of the Department of Law under Dean Gregory has gone on regularly since the last annual report and the high standards of the past have been maintained. Its graduates have passed the District of Columbia bar examinations

without difficulty whereas in general from 35 to 55% of those attempting the examinations have failed. The maximum registration so far in the year 1912-1913 is 269.

The resignation of Justice J. A. Van Orsdel from the faculty has removed an able and esteemed member. His courses on Mining and Water Rights and Irrigation were not particularly applicable to this section of the country and will be omitted for the present.

The experiment of holding classes at 7:50 A. M., for those whose employment begins at 9:00 is being tried with much promise of success. The earnestness and self-sacrifice of the students in Government Service bears result in its effect upon other students. Often graduates of colleges, their maturity in years, their high standards, and their sincerity of purpose, tells for serious work and consequently for high scholarship.

The Law Department of the University should be housed in its own building. This is a claim that it has upon its sons, whose interest in the University is often based upon their Law courses alone, with the aid of which a number have attained wealth or distinction.

DEPARTMENT OF MEDICINE.

Dean Borden of the Department of Medicine reports that "The motive which has dominated the action of the Faculty of Medicine during the past year has been the continuance of its policy to improve and systematize the teaching and the facilities of the Department for its students and maintain the expenses of the Department within its income."

There has been a steady and gratifying increase in the number of matriculants. In the panic year of the University, 1909-1910, there was but 15 matriculants, in 1911-1912 there were 39 and this year 58. The total number at present is 98.

Special improvements have been made during the past year consisting in the establishment of a laboratory for clinical chemistry, the re-constitution of the Medical Library and the employment of a competent full time librarian, and above all

in additions and changes in the Faculty made to meet the requirements of the American Medical Association and the Board of Regents of the State of New York.

There is need for an addition to the Hospital. The Inspector from the Council on Education of the American Medical Association states: "It is to be regretted that the University Hospital does not afford larger clinical facilities and it is to be hoped that at an early date you may find it possible to erect the proposed addition. The dispensary facilities, both in regard to equipment and space, in our judgment are inadequate to fully meet the demands in dispensary teaching in medicine and surgery. Of course the other dispensaries to which we understand your students have access may in some measure make up for this efficiency. It is our judgment that dispensary teaching should be coordinate with ward teaching in the hospital and should, therefore, be given such attention as would impress upon both teacher and student the great value of training from this source."

Dean Borden reports that "the standing of students graduated in the last three years has been excellent and compares favorably with the medical schools in the United States having the highest standing. For the first time in the history of the Department of Medicine the graduates examined before State Boards have shown less than 10% of failures and the school in consequence for the *first time* has been rated with the *first class* of medical schools, namely, those having *less than 10 per cent. of failures*. The improvement which began in 1909 and which has steadily increased since that time, is shown by the following table:

Year Examined.	Per cent. Failed of all who Appeared.
1906	23.7
1907	24.7
1908	30.3
1909	16.1
1910	10.5
1911	5.7

"The decrease in failures in four years from 30.3 per cent. to 5.7 per cent. is evidence both of the improved facilities in the Department of Medicine and of the greater strictness with which the students are held to its educational requirement.

* * * * *

"Our school has been continued as a class "A" school of the American Medicine Association, although 20 of the 70 schools accredited last year have been dropped, leaving but 50 schools as Class "A" in the United States, out of a total of 116. Of our immediate neighbors, all the schools in Baltimore except Johns Hopkins were dropped to Class "B" and in this city we remain as the only Class "A" school for white students."

I congratulate the members of the Board of Trustees and the Dean of this Department upon the fine position the Department of Medicine has taken among the institutions of the country and trust that it will receive the endowments and financial support from the community, which will enable it to maintain the high standards that have been prescribed for it and which have been so well met.

DEPARTMENT OF DENTISTRY.

This Department of Dentistry has an increased registration over last year, and is doing excellent work. The laboratories and infirmary have been put in thorough repair and brought up-to-date. This school is rated by the Board of Examiners of the District of Columbia, as fourth on the list of dental colleges of the United States. The number of students in attendance December 14th, 1912, was fifty-nine.

ASSOCIATED COLLEGES.

The College of Pharmacy reports an attendance of sixty-seven on December 7th, 1912. The increase in the standard

of educational qualifications for admission has caused a small falling off, but it is expected that as in other like cases the increase of standards will in time bring up the matriculation to the former numbers. This school, under Dean Kalusowski is doing excellent work and is of good reputation among other schools in the country.

The College of Veterinary Medicine is entering upon its fifth year as an affiliated College of the University with a registration of 39 students. Students are now enrolled for a four years instead of a three years course so as to cover comprehensively the subjects necessary to complete a full course in Veterinary Science in late hours. This school in its admission and graduation requirements meets the demand of the Department of Agriculture and the Civil Service Commission for Veterinary inspection in the Bureau of Animal Industry of the Department of Agriculture.

The report of the Treasurer of the University, issued separately, shows an improved financial condition of the institution over that of previous years, although there now appears a new obligation involved in the purchase of a new University Building for Arts and Sciences, at 2023 G Street. So far there has been a cash payment of only one thousand dollars upon this building, but the obligations resting upon it, amounting to \$31,500, are covered by the value of the land and building, and the acquisition has reduced considerably the annual payment made in rent for the use of the building. The increased stability of the institution and the increased need for its existence shown by a steady increase in the total registration from year to year, ought to stimulate its friends and alumni to give more liberally for its advancement and development.

The University is doing each year better work than in the previous year; but it is much restricted in the quantity of work that it can offer while maintaining the quality which is its first consideration. I wish to emphasize my belief in the supreme importance of a permanent teaching staff of a high order.

Conducive to the establishment of such a staff, which really with the students forms a University, should be a movement toward a liberal endowment of the Professorships of all important and appropriate subjects. I urge this upon the attention of the friends of the University as paramount to all other wants and needs.

Respectfully submitted,

C. H. STOCKTON,

President.

VOLUME XII

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The George Washington University Bulletin

Pre-Medical Courses
in
Columbian College



December, 1913

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THE PRE-MEDICAL YEAR

AND OTHER

Pre-Medical Courses in Columbian College.

HIGHER PRELIMINARY REQUIREMENTS.

All "Class A" medical schools in the United States will hereafter require for admission at least one year of college work. The *Journal of the American Medical Association* of August 23, 1913, contained a statement of the higher preliminary requirements by State boards as follows:

"There are now thirteen State medical licensing boards which have adopted preliminary requirements in advance of a four-year high-school education. These are as follows:

State Examining Board of—	Number of years required.	Affects students matriculating.	Affects all applicants.
North Dakota.....	2	1907-08	1911
Iowa	2	1907-08	1911
Minnesota	2	1908-09	1912
Colorado	2	1910-11	1914
Connecticut	1	1910-11	1914
Kansas	1	1910-11	1914
Indiana	2	1910-11	1914
Utah	1	1910-11	1914
South Dakota.....	2	1911-12	1915
Vermont	1	1912-13	1916
Pennsylvania	1	1913-14	1917
Kentucky	2	1914-15	1918
California	1	1914-15	1918

To meet the higher preliminary requirements for medical education, Columbian College of the George Washington University offers the following courses: A *one-year pre-medical course* satisfying the requirement of the American Medical Association for admission to the Department of Medicine; a *six-year combination course*, consisting of two years in Columbian College and four years in the Department of Medicine, for which the degrees of Bachelor of Science in Medicine and Doctor of Medicine are given; and a *seven-year combination course*, consisting of three years in Columbian College and four years in the Department of Medicine, for which the degrees of Bachelor of Arts and Doctor of Medicine are given.

The Department of Medicine of the George Washington University in the classification of the Council of Medical Education is one of the "Class A" medical colleges. On and after January 1, 1914, the Department of Medicine, in common with all other "Class A" schools in the

United States, will require for admission to the freshman class a pre-medical course of one college year consisting of specified subjects.

Students having the requisite *high-school* preparation will find it of special advantage to take this pre-medical course in Columbian College, as upon the completion of the year they can be admitted at once to the Department of Medicine.

ADMISSION TO COLUMBIAN COLLEGE.

The requirement for admission to Columbian College is a four-year high-school course, or its equivalent, amounting to fifteen units, including English, 3 units; Algebra, through quadratics, $1\frac{1}{2}$ units; Plane Geometry, 1 unit, and one of the following languages—German, French, Spanish, Latin, Greek, 2 units. The candidate for the study of medicine must also present one unit of American History and Civil Government, taken either in the high school or in the highest elementary grade. If, however, the unit of history is elementary, it must be in addition to the fifteen units. The remainder of the fifteen-unit requirement is elective and may be satisfied by any high-school subjects. A unit represents a year's study in any subject constituting approximately a quarter of a full year's work.

Candidates for the study of medicine should include in the college entrance subjects two units of German or French, in order to continue in college the study of the same language and obtain a satisfactory reading knowledge of the language.

This is not indispensable, because the Council of Medical Education states—

"Two units of Greek or Latin may be substituted for the two required units of French or German."

The advice of the Council is, however, as follows:

"If a satisfactory reading knowledge of German or French is to be obtained in the one year of college work, it is essential that an advanced course be offered and that the student have completed as a prerequisite in the high school two units of elementary work in German or French."

Candidates substantially prepared may be registered in Columbian College as conditioned students, provided the deficiency is such that it can be made up before the end of the one-year pre-medical college course. To enter the Department of Medicine, it is necessary to have satisfied all of the required academic or high-school preparation and, in addition, all of the specified subjects of the one-year pre-medical college course. No conditioned student will be registered in the Department of Medicine.

ADMISSION TO ONE-YEAR PRE-MEDICAL COURSE.

One-year pre-medical students will be admitted on the fourteen-unit entrance requirement of the Council on Medical Education of the American Medical Association as follows:

Seven Required Units.—English (Reading and Practice), 2 units; Algebra to quadratics, 1 unit; Plane Geometry, 1 unit; German or French, or Latin or Greek, 2 units; American History and Civil Government, 1 unit (if elementary grade, it must be in addition to the fourteen units).

Seven Elective Units.—To be selected from the following: English, Mathematics, Latin, Greek, German, French, Spanish, Scandinavian, Science with laboratory work, Agriculture, Drawing, Manual Training, Domestic Science, Music.

PRE-MEDICAL REQUIREMENT OF THE AMERICAN MEDICAL ASSOCIATION.

The subjects and requirements of the one-year pre-medical course, as stated by the Council on Medical Education of the American Medical Association, are as follows:

"The preliminary college year shall extend through one college session of at least thirty-two weeks of actual instruction, including final examinations.

* * * * *

"This preliminary college year shall include courses in physics, chemistry, biology, and German or French, each course to embrace at least eight semester hours of didactic and laboratory work in each subject, as shown in the following schedule, provided that a student may satisfy the requirements of physics in presenting one unit of high-school physics and completing a half year of college physics, which continues and does not duplicate the work done in the high school."

SCHEDULE.

Subject.	Lectures or recitations per week.	Laboratory periods* per week.	Total hours per semester.	Total semester hours per year.
Physics I.....	2	2	4	8
Chemistry I.....	2	2	4	8
Biology I.....	2 or 3	2 or 1	4	8
German or French 2	4 or 3	.....	4 or 3	8 or 6
Total.....	10	6 or 5	16 or 15	32 or 30

* Each laboratory period must extend over at least two hours.

OR, EXPRESSED IN CLASS HOURS.

Subject.	Total hours lectures or recitations.	Total hours laboratory work.	Total minimum hours didactic and laboratory.
Physics I.....	64	128	192
Chemistry I.....	64	128	192
Biology I.....	64 or 96	128 or 64	192 or 160
German or French 2...	128 or 96	.....	128 or 96
Totals.....	320	384 or 320	704 or 640

ONE-YEAR PRE-MEDICAL COURSE IN COLUMBIAN COLLEGE.

Candidates for the one-year pre-medical course for admission to the Department of Medicine should register in Columbian College for the following courses:

Physics 3 (lectures).....	3 hours
Physics 2 (laboratory).....	2 periods
Chemistry 1 (lectures).....	3 hours
Chemistry 2 (laboratory).....	2 periods
Zoölogy 1 and 2 (lectures and laboratory).....	6 periods

SCHEDULE OF HOURS.

Hrs.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
9.15						
10.15	French 3	{ Physics 2	French 3	{ Physics 2	French 3	{ Zoölogy
11.15	German 3	{ (Laboratory)	German 3	{ (Laboratory)	German 3	{ ((Laboratory)
1.45	Physics 3	{ Chemistry 2	Physics 3	{ Chemistry 2	Physics 3	
2.45		{ (Laboratory)		{ (Laboratory)		
3.45			{ 4-6.40		{ 4-6.40	
5.00	Zoölogy 1	Chemistry 1	Zoölogy	Chemistry 1	Zoölogy	Chemistry 1
5.50	Zoölogy 2		{ (Laboratory)		{ (Laboratory)	

SIX-YEAR COURSE FOR THE DEGREES OF BACHELOR OF SCIENCE IN MEDICINE AND DOCTOR OF MEDICINE.

Regular students in this course will complete two years of work aggregating at least thirty-six prescribed hours in Columbian College and the four-year course in the Department of Medicine. On the completion of this six-year course, the student will receive at the same time the degrees of Bachelor of Science in Medicine and Doctor of Medicine. The curriculum requirement for this combined six-year course is as follows:

Biological Sciences:	HOURS.
Zoölogy 1.....	3
Botany 1, 2.....	3
Chemistry 1, 2, 23.....	7
English 1 or 2.....	3
German or French or Spanish.....	6
History.....	3
Mathematics 3 or 6.....	3
Physics 3 and 2.....	5
Psychology and Logic.....	3
Total.....	36

SEVEN-YEAR COURSE FOR THE DEGREE OF BACHELOR OF ARTS AND DOCTOR OF MEDICINE.

Regular students in this course will complete at least forty-eight hours as prescribed in Columbian College and the four-year course in

the Department of Medicine. On the completion of the prescribed forty-eight hours of work in Columbian College and the first year of the regular course in Medicine, the student will receive the degree of Bachelor of Arts.

The forty-eight hours of prescribed subjects in Columbian College are as follows:

Biological Sciences:	HOURS.
Zoölogy 1 and 2.....	6
Botany 1, 2.....	3
Chemistry 1, 2, 23.....	7
English 1 or 2.....	3
French or Spanish.....	6
German.....	6
History.....	3
Mathematics 3 or 6.....	3
Physics 3 and 2.....	5
Psychology and Logic.....	3
Economics, History, or English.....	3
Total.....	48

SUBJECTS IN PRE-MEDICAL COURSES.

BIOLOGICAL SCIENCE.

Zoology.

First Section. Primarily for Undergraduates.

1. *Systematic Zoölogy*.—I. Invertebrates. This includes lectures and laboratory work. The lectures cover all the branches of invertebrates, and correlated with these lectures is the study and dissection of typical specimens in each group. This course is intended to familiarize the student with biological characters, classificatory laws, and the general principles of evolution. Lecture, *Mon.*, at 5.00; laboratory, *Wed., Fri.*, 5.00-6.40; *Sat.*, 10.15-12.15. Professor BARTSCH and Miss MACMILLAN.

2. *Systematic Zoölogy*.—II. Vertebrates. This includes lectures and laboratory work. The lectures will cover the various branches of vertebrates, and correlated with these is the study and dissection of typical specimens of each group. Open only to students having completed Course 1. Lecture, *Mon.*, at 5.50; laboratory, *Wed., Fri.*, 5.00-6.40; *Sat.*, 10.15-12.15. Professor BARTSCH and Miss MACMILLAN.

Botany.

First Section. Primarily for Undergraduates.

1. *General Botany*.—An introductory course dealing with the fundamental concepts of plant life. Representative members of the different groups of plants will be studied, and lines of evolutionary development will be emphasized. First half-year. Lecture, *Th.*, at 5.00; laboratory, *Tu.*, and *Sat.*, 5.00-6.40. Mr. HARRINGTON.

2. *Morphology of the Seed Plants*.—A study of the structures of root, stem, leaf, flower, and fruit of the seed plants, with incidental reference to the physiology of the plant and its relation to its environment. Sec-

ond half-year. Lecture, *Th.*, at 5.00; laboratory, *Tu.* and *Sat.*, 5.00-6.40. Mr. HARRINGTON.

CHEMISTRY.

1. *General Chemistry*.—A series of illustrated lectures, accompanied by recitations and exercises, on theoretical, inorganic, organic, and technical chemistry. *Tu., Th., Sat.*, at 4.50. Professor MUNROE, Assistant Professor SWETT.

2. *Laboratory Practice*.—A laboratory course for the study of the principles of chemistry and the method of conducting chemical experiment. Two three-hour periods. *Tu., Th.*, at 1.30 or at 7. Professor MUNROE, Assistant Professor SWETT.

23. *Organic Chemistry*.—Advanced course. *Wed., Fri.*, at 4.50. Professor MUNROE, Assistant Professor SWETT.

ECONOMICS.

20. *General Economics*.—An outline course in the principles of political economy, devoted mainly to the study of production and exchange under present-day conditions. Given in two sections. First half-year. *Mon., Wed., Fri.*, at 11.15 (Section a); at 5.50 (Section b). Assistant Professor KERN.

21. *The Economics of Distribution and Consumption*.—A continuation of Course 20, devoted mainly to the problems of rent, interest, wages, and profits, and including an examination of competition, private property, luxury, saving, and speculation, in their effects upon human welfare. Given in two sections. Second half-year. *Mon., Wed., Fri.*, at 11.15 (Section a); at 5.50 (Section b). Assistant Professor KERN.

ENGLISH.

1. *English Rhetoric*.—A study of the principles of self-expression through language, with practice in composition. *Tu., Th., Sat.*, at 10.15. Professor WILBUR.

2. *English Rhetoric*.—Parallel with Course 1. *Mon., Wed., Fri.*, at 5.00. Professor WILBUR.

FRENCH.

1. *Grammar, Composition, Drill in Pronunciation*.—Fraser and Squair's French Grammar. Translation and reading of nineteenth century fiction and history. (400-500 pages.) For beginners. *Mon., Wed., Fri.*, at 11.15. Professor HENNING.

2. Parallel with Course 1. Fraser and Squair's French Grammar. *Tu., Th., Sat.*, at 5.50. Professor HENNING.

3. *Translation, Reading, Grammar, Composition*.—Fraser and Squair's French Grammar. Mérimée's *Carmen*; other texts to be announced. Open to students who have passed in French, 1 or 2, or have fulfilled the admission requirements in Elementary French. *Mon., Wed., Fri.*, at 10.15. Professor HENNING.

4. Parallel with Course 3. Fraser and Squair's French Grammar. First text. Mérimée's *Carmen*; other texts to be announced. *Tu., Th., Sat.*, at 5.00. Professor HENNING.

GERMAN.

1. *Elementary*.—The essentials of German grammar; translation of prose and poetry; composition and dictation. This course is open mostly to beginners, and the work done is equivalent to that of a two-years' course in high schools and academies of good standing. *Tu., Th., Sat.*, at 11.15. Professor SCHOENFELD.

2. Parallel with Course 1. *Tu., Th., Sat.*, at 5.00. Professor SCHMIDT.

3. Selected texts from the best contemporary authors will be read and one or more of the German classics carefully studied. The work in grammar and composition done in elementary German will be continued, with special emphasis on syntax, word-formation, and the relationship of German and English. This course is equivalent to the advanced German of the admission requirements, and it is open only to students who have passed Course 1 or 2, or have satisfied the admission requirement in elementary German. *Mon., Wed., Fri.*, at 11.15. Professor SCHOENFELD.

4. Parallel with Course 3, except that in the second term scientific German is read. *Tu., Th., Sat.*, at 5.50. Professor SCHMIDT.

HISTORY.

1. *Mediæval History*.—A history of the settlement of the Germanic tribes in the territory of the empire, with a study of feudal institutions, extending through the movements of the Crusades; texts with assigned readings. First half-year. *Mon., Wed., Fri.*, at 2.45. Professor SWISHER.

2. *Mediæval History*.—A history of the evolution of national government extending through the periods of the Renaissance and the Protestant Revolution; texts and assigned readings. Second half-year. *Mon., Wed., Fri.*, at 2.45. Professor SWISHER.

3. *Modern European History*.—A study of the European States under the new conditions resulting from the discovery of America and the opening of the oriental trade routes, extending through the period of the French Revolution; texts, lectures, and collateral readings. First half-year. *Mon., Wed., Fri.*, at 3.45. Professor SWISHER.

4. A continuation of the preceding through the revolutionary movements of the nineteenth century, with a more detailed study of recent issues; texts, lectures, and collateral readings. Second half-year. *Mon., Wed., Fri.*, at 3.45. Professor SWISHER.

5. *Mediæval History*.—Parallel with Course 1. First half-year. *Tu., Th., Sat.*, at 5.50. Professor SWISHER.

6. *Mediæval History*.—Parallel with Course 2. Second half-year. *Tu., Th., Sat.*, at 5.50. Professor SWISHER.

25. *English History*.—A general course with particular attention to constitutional and political development. Text-book, lectures, and as-

signed readings. First half-year. *Tu., Th., Sat.*, at 11.15. Assistant Professor McNEMAR.

26. *European History*.—Political history of modern Europe since 1850. Second half-year. *Tu., Th., Sat.*, at 11.15. Assistant Professor McNEMAR.

30. *American Constitutional History*.—A history of the origin and development of the Federal Constitution of 1789, with a study of its interpretation under the pressure of party issues. Lectures, text-books, and collateral readings. *Tu., Th., Sat.*, at 5.00. Professor SWISHER.

MATHEMATICS.

3. *Solid Geometry; College Algebra; Plane Trigonometry*.—*Mon., Wed., Fri.*, at 9.15. Professor HODGKINS.

4. *Algebra; Plane Trigonometry*.—*Mon., Wed., Fri.*, at 5.00. Mr. HODGKINS.

6. *Solid Geometry; College Algebra; Plane Trigonometry*.—*Mon., Wed., Fri.*, at 5.50. Mr. HODGKINS.

PHILOSOPHY AND PSYCHOLOGY.

1. *General Psychology*.—An introductory study of the principal facts and laws of the mental life. *Mon., Fri.*, at 10.15. Professor RUEDIGER.

2. *General Psychology*.—Parallel with Course 1. *Mon., Fri.*, at 5.00. Professor RUEDIGER.

3. *Logic and Theory of Knowledge*.—Principles of deductive and inductive inference, followed by a study of the nature and structure of knowledge, its organization, and its relation to language. *Wed.*, at 10.15. Professor RUEDIGER.

4. *Logic and Theory of Knowledge*.—Parallel with Course 3. *Wed.*, at 5.00. Professor RUEDIGER.

PHYSICS.

2. *Laboratory Physics*.—A selected series of experiments, mainly quantitative. Two two-hour periods. *Tu., Th.*, at 10.15, or *Tu., Th.*, at 7.30. Professor HODGKINS and Dr. GORDON.

3. *Introductory General Physics*.—A lecture and recitation course, planned with reference to the needs of the general student. *Mon., Wed., Fri.*, at 1.45. Professor HODGKINS.

SPANISH.

1. *Grammar, Composition*.—Hills and Ford's Spanish Grammar. Translations and reading of nineteenth century fiction and drama. Open to first-year students only by permission of the instructor. *Mon., Wed., Fri.*, at 5.00. Mr. JOHN.

All inquiries should be addressed to—

DEAN WILLIAM ALLEN WILBUR,
Columbian College,
2023 G St., Washington, D. C.



The George Washington University

REPORT OF THE PRESIDENT

1912-13

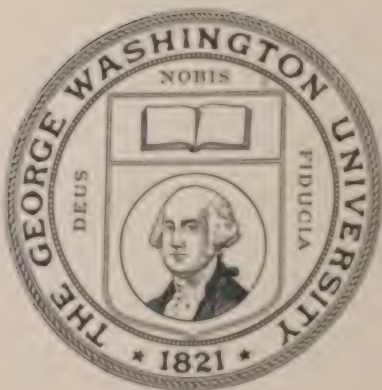


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JANUARY, 1914

The George Washington University

REPORT OF THE PRESIDENT

~~1912-13~~
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WASHINGTON, D. C.
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THE GEORGE WASHINGTON UNIVERSITY.

REPORT OF THE PRESIDENT.

WASHINGTON, D. C., *January 1, 1914.*

TO THE CHAIRMAN OF THE BOARD OF TRUSTEES, GEORGE WASHINGTON UNIVERSITY.

SIR: I have the honor to present my report on the University for the academic year 1912-1913, which ended on September 1st, 1913, and on the general affairs of the University up to the date of the report.

There will be found appended reports from the Deans of the various departments of the University for the academic year 1912-1913. Dean Henry Parker Willis, of the College of the Political Sciences, was on leave of absence during the entire academic year, and severed his connection with the University on February 10th, 1913, by resignation, which was accepted with great regret. Statistics in regard to the College of the Political Sciences are therefore incorporated in this report.

The prescribed courses and departments of the University were carried on from the beginning of the academic year, September 25th, 1912, until the University Commencement, June 11th, 1913, there being a maximum registration in all departments of 1,347 students. The largest number of students in attendance at any one time was 1,226. This showing marks a decided increase over the number of the previous year, 1911-1912.

The distribution of the students in the various departments of the University giving the maximum registration was as follows:

School of Graduate Studies.....	92
Columbian College.....	353
College of Engineering and Mechanic Arts.....	196
College of the Political Sciences.....	56
Teachers College.....	87
Department of Law.....	312
Department of Medicine.....	103
Department of Dentistry.....	70
National College of Pharmacy.....	64
College of Veterinary Medicine.....	39
	<hr/> 1,372
Duplicates.....	25
	<hr/> 1,347
Total.....	1,347

The building, 2023 G street N. W., acquired by the University, has now been satisfactorily arranged for the needs of the Department of Arts and Sciences, and from the steadily increasing registration in that Department it is evidently in a situation sufficiently accessible to stu-

dents from the various parts of the city. The payment of the mortgage debt upon this building has begun, and it is hoped in due time to free the building and its adjoining grounds from all mortgage obligations.

It was found that the space in the rear of this building was not sufficient for the proper establishment of the mechanical laboratory for the College of Engineering. Additional property was purchased and the building of the laboratory begun during the past summer, a special fund having been raised for the purpose through the efforts of Gen. Maxwell Van Zandt Woodhull, one of the trustees of the University. The building, when completed, will have, it is expected, the necessary machinery installed in time for use during the second semester of the current year. This erection, with its contents, will give a much-needed addition and restoration for the mechanical work of the College of Engineering.

The want of a Nurses' Home for the Hospital has been obvious for some time, and as the building rented was wanted for other purposes by its owners, a suitable building was purchased for that purpose at the southwest corner of 13th and L streets. This gives us the same amount of room as the rented building and is capable of extension.

The Division of Architecture which was added to the College of Engineering was carried on successfully during the academic year, and the guarantee fund raised by those interested in the instruction in Architecture was not required to be drawn upon by the University. I trust that Architecture will remain a permanent and successful feature in the curriculum of the University.

Because of the cessation of annual subscriptions for the special purpose and a considerable reduction in the numbers in attendance in the College, it was decided by the Board of Trustees to merge the College of the Political Sciences with the Columbian College, and thus save the administrative and other expenditure arising from the separate organizations. This has been successfully done, the Columbian College now offering the courses in Political Science, History, International Law, and Commercial Geography previously offered by the College of the Political Sciences which bear upon a Consular and Diplomatic career. It is considered that the courses now offered by Columbian College will meet the requirements for the examinations for entrance into both the Consular and the Diplomatic Services.

The following table gives the number of students attending the College of the Political Sciences during the year 1912-1913:

Class.	In attendance.	Withdraw.	Dropped.	Total.
M. Dip.	2	..	1	3
A. B.	23	4	2	*30
Special	20	9	3	32
	<hr/>	<hr/>	<hr/>	<hr/>
Total.....	45	13	6	65

* 1 A. B. student received degree in October.

Of the 65 students registered in the College, 48 were employed during the day in salaried positions, and of these 34 held Government positions. Their average age was 25 years and 6 months. The oldest was 43; the youngest 18.

The maximum number of hours of work carried by any one student was 21. The minimum number of hours carried by a student in regular standing was $2\frac{1}{2}$; by a special student, 1. The average number of hours carried by the student in regular standing was 10; by the special student, 3.

The following table shows the hours of work carried by these students, divided among the various University subjects:

Topic.	Special.	Regular.	Total.	Per cent
Economics	32	67	99	33.5
History	10	37	47	16.
Political Science.....	$4\frac{1}{2}$	36	$40\frac{1}{2}$	13.5
English	1	$33\frac{1}{2}$	$34\frac{1}{2}$	11.5
International Law.....	$6\frac{1}{2}$	$20\frac{1}{2}$	27	9.
German	3	$12\frac{1}{2}$	$15\frac{1}{2}$	5.
Spanish	3	6	9	3.
French	$1\frac{1}{2}$	6	$7\frac{1}{2}$	2.5
Psychology .....	..	6	6	6.
Geology .....	..	5	5	
Physics .....	..	3	3	
Chemistry .....	..	$2\frac{1}{2}$	$2\frac{1}{2}$	
Total.....	$61\frac{1}{2}$	235	$296\frac{1}{2}$	100.

Previous to the past year the President of the University had been assigned to the duty of Acting Dean of the Department of Arts and Sciences, which consists now of the Columbian College, the College of Engineering, the Teachers College, and the School of Graduate Studies. The intimate relationship and interweaving of the courses of the various parts of this Department necessitated a closer attention to the various parts as a natural unit than could be given by the President, and consequently a separate Dean became a necessity both to relieve the President and to attain increased efficiency. Consequently, on the 10th of December, 1912, Dean Howard L. Hodgkins, of the College of Engineering, was appointed by the Board of Trustees to the position of Dean of the Department of Arts and Sciences, in addition to that already held by him as Dean of the College of Engineering. This gives the department a more positive organization, especially in matters of common interest, and prevents independent action leading to confusion in regard to subjects that pertain to the Department as a whole.

University Library.

	Volumes
The total number of volumes in the Arts and Sciences library (of which number 10,759 are unbound) is.....	37,074
The law library contains in all.....	5,901
The medical library contains.....	1,618

Making a total in the University Library of..... 45,493

This is an apparent reduction in the University library, but this decrease is due mainly to the fact that the law and medical libraries were heretofore carried in round numbers. The supervision over all of the libraries is now much closer than ever before and the number of books lost or mislaid has been reduced to a minimum.

Although the space assigned for the library of the Department of Arts and Sciences is better suited for library purposes than any hitherto used, it is nevertheless cramped and gives an inadequate idea of the resources of this library. A separate fireproof library building is one of the needs of the University. The space now occupied by the library is desirable for class-rooms, and could the library be moved into a building of its own, two great wants would thus be met.

The report of the Treasurer of the University, issued separately, shows an improved financial condition over the previous year, although we acquired the University building and a Nurses' Home, besides erecting the mechanical laboratory, with a consequent purchase of additional ground.

The appended reports show the workings of the different schools and the activities and composition of the students in the various departments of the University. In order to study the future policy of the University, it is necessary to make such a diagnosis of the present situation; and the information gathered in this way, incomplete as it may be, enables us largely to grasp the situation. This study must also be coupled with one based upon the peculiar circumstances attendant upon Washington, which is not only the political center of the nation, but is also becoming, from the necessity of applied science to governmental effort, no mean scientific center, with growing literary, artistic, and musical interests. The Library of Congress, with its magnificent collections, stands alone in its peculiar sphere in the nation and has but few equals or superiors in the civilized world.

The University, properly conducted, has, first of all, a large constituency for its afternoon hours, composed of mature, intelligent men and women employed in private and public pursuits. From this body all departments of the University receive the larger portion of their students, except that of Medicine, which latter Department has adopted standards compelling full time attendance throughout the day, thus ruling out persons employed during part of the time. With this exception a student capital is always at hand, giving us an unusually stimulating and stable personnel to build upon in the undergraduate, graduate, and professional schools.

To these students can be added others—young men and women graduates of the excellent high schools of the public school system of the District of Columbia, and still others resident in Washington and the vicinity. The fact that the George Washington University is the only existing non-partisan, non-sectarian University in the District of Columbia appeals to all classes of students.

The registration for the coming year of 1913-1914 in the Columbian College exceeds that of the Columbian College and of the College of the Political Sciences last year combined, so apparently there has been no loss in student force by the merging of the two institutions. It is hoped that the University will continue to play a leading part as a source of supply for the consular and diplomatic services. There is no employment under the Government that requires to a greater extent educated men of high character supplemented by special training and knowledge. It has been a reflection upon the past policy of our Government that the greater the capacity and success of a member of either the consular or diplomatic service, duly followed by his promotion, has by this very promotion led to the greater possibility of his summary removal to make place for unqualified persons. Fortunately now these services have a more permanent tenure. The questions pending and unsettled of a diplomatic nature between ourselves and other countries are certainly of a sufficiently grave and complicated nature to show the necessity for men with very considerable personal and professional qualifications for our diplomatic positions.

The Consular service in particular is constantly growing and broadening in its duties, and is already so wide reaching that the necessity of special training has become evident to the most superficial observer. The entrance requirements should be high and the permanence of tenure should continue to be certain. The mercantile and commercial interests of our country are so much concerned that they have added to the demand for a high order of men in this service.

Buildings are needed for the better housing and development of the University. These needs include a Science Hall for the chemical and other laboratories, an Auditorium with class-rooms, a library building, besides requirements mentioned elsewhere. Buildings and grounds, however, though necessary as shelter, are secondary, especially with costly architectural effects, to the need of an adequate and competent teaching staff properly compensated for their work. I therefore urge upon the friends and alumni of the University, as directly conducive to this end, the need of the completion of the fund now being raised for general needs of the University, also that for the endowment of professorships, as well as an increase in the general endowment funds of the University.

The current year has opened with a greatly increased registration, and the favorable outlook should stir the friends of the University to increased efforts in behalf of an institution providing an education, professional and general, for those who, by their industry and capacity, by their sacrifices, and even by their privations, richly deserve to reach that attainment which is not only of service to them personally, but to the country of which they are citizens and rulers.

C. H. STOCKTON,
President.

TO THE PRESIDENT OF THE UNIVERSITY.

SIR: I have the honor to submit the following report in regard to the Department of Arts and Sciences for the session of 1912-13.

The work of the Department was divided into administrative departments as follows:

The School of Graduate Studies.

Columbian College.

The College of Engineering and Mechanic Arts.

The Teachers College.

The College of the Political Sciences.

At the close of the session the College of the Political Sciences was discontinued as an administrative division and its work merged with Columbian College.

Each College had its Dean, who was charged with the administrative duties connected with the particular work of the College, and who had jurisdiction over the enrollment of the students and the care of the students during the session.

The total enrollment for the session was 778, which was 45 more than during the previous session. This enrollment represented 58 per cent of the students in the University. The number of men was 525 and the number of women was 253.

There were given 138 courses of study, with 284 lecture or recitation hours and 70 laboratory or drawing periods a week, an aggregate of 354 units of work. This means that there was an average of 59 classes each day of the week.

A few classes met at 8:00 A. M., but in general the classes met during the eight recitation periods, beginning at 9:15 A. M. and closing at 6:40 P. M. The chemical laboratories and the drawing-rooms were open every night until 10:30 P. M., and the physical, electrical, and dynamo laboratories were open on two nights of the week.

Because of the large number of students who are in the Government service and who attend for the two periods from 5:00 to 6:40 P. M., the number of classes meeting during these periods is larger than for any other two periods of the day, and our class-room facilities are fully utilized during these periods. In fact, we shall soon need additional class-rooms to accommodate the students if the enrollment continues to increase at the rate now indicated.

That we need additional members on the teaching staff is well known, but I wish to call particular attention to our need for an instructor giving full time to the work in Biology, and also to our need of a man to take charge of Physics, which is now combined with Mathematics.

The completion of the new Mechanical Laboratory will add very much to our work in engineering, and will make it possible for us to do in our own laboratories what we have been compelled to do at the sacrifice of efficiency in other places.

Our most pressing need in material equipment is a new science building to house the work in Chemistry, in Biology, and perhaps in Physics. Our work in Biology is certain to develop, and even now the rooms assigned to it are too small. The inconveniences resulting from having the work in Chemistry in the Medical Building, nearly fifteen minutes distant from the other buildings, are very trying and deter some students from taking the work. Could this work be placed in a building near our other buildings, it would be an important addition to our facilities and would result in greatly increased efficiency.

I wish to express my appreciation of the helpful coöperation I have received from all my colleagues on the Faculty in the performance of the duties of my office.

Respectfully submitted,

H. L. HODGKINS,

Dean, Department of Arts and Sciences.

TO THE PRESIDENT OF THE UNIVERSITY.

SIR: I would submit the following report on Columbian College for the college year 1912-13. The registration for the year as published in the current catalogue was as follows:

Candidates for A. B. degree.....	184
Candidates for S. B. degree.....	2
Candidates for B. S. in Chemistry degree.....	44
Special	120
Auditors	3

353

The Special students, including three Auditors, constituted 34.8 per cent of the entire registration. About 40 per cent of the Special students were fully prepared for college. A considerable number of these had college degrees; the others had advanced standing. This means that of our entire student registration in Columbian College last year all but 20 per cent were fully prepared for regular college courses for degrees, and this 20 per cent who lacked such preparation was made up of mature students properly qualified for the special work for which they registered. These figures from registration and the reports likewise from the professors indicate that we had a student body of particularly good quality, making it possible to pursue our work unhindered by inadequate preparation.

The classification of the student body in the four classes was as follows:

Freshman Class	80
Sophomore Class	73
Junior Class	41
Senior Class	36
Special students	120
Auditors	3

353

This classification is made as follows: The designated classes are regular students only. The Freshman Class is constituted of all first-year students entering upon the beginning of the college course. The Sophomore Class is constituted of all other students having credit up to and including twenty-six hours. The Junior Class is constituted of all other students excepting those who plan to graduate in the year of registration. The Senior Class is constituted of all students planning to graduate in the year of registration. The Special student class is constituted of students who are substantially deficient in the admission requirements but qualified in the subjects for which they are registered, or students entirely qualified in the admission requirements but pursuing selected subjects without reference to curriculum requirements for a degree.

The figures submitted in December of last year stated that 44 per cent of the entire registration was on certificates from the Washington High Schools. It is in general correct to say that about half of our students have the excellent preparation of the Washington High Schools. The larger part of those who come from out of town bring certificates from high schools that are accredited in their several States.

The statistics of graduation from Columbian College in the various courses for degrees through the year are as follows:

Bachelor of Arts.....	30
Bachelor of Science in Chemistry.....	6
	<hr/>
	36

The developments of the year in Columbian College emphasize the importance of strengthening the curriculum in every possible way, with reference, first, to the political and social sciences in order to continue adequately the work of the College of the Political Sciences now merged in Columbian College; and, second, the natural sciences in order to prepare adequately for the higher requirements for admission to the Department of Medicine. The situation with respect to the Political Sciences is as follows:

The first venture of this institution in the field of the Consular and Diplomatic Service was the establishment in 1898 of the School of Jurisprudence and Diplomacy, at the opening of which President McKinley was present and gave the address. This was planned as a graduate law school, and the law men were interested in it. In 1907 the plan was modified in the establishment of the College of the Political Sciences, which was established as a college of arts, specialized in its curriculum requirements in political science studies, with training for diplomatic and consular service as its chief motive. It was thought that our situation in Washington made this natural and possible. We had students registered in the College of the Political Sciences as follows: 1907-08, 61; 1908-09, 89; 1909-10, 64; 1910-11, 77;

1911-12, 91; 1912-13, 56. Last year the Trustees further modified the plan of these studies by merging the College of the Political Sciences with Columbian College. Group IV of our curriculum, emphasizing the political and social sciences, is the political science group taken by all of those who are pursuing courses in preparation for the Consular or Diplomatic Service. There are this year registered in Group IV, the Political Science Group in Columbian College, 85, 19 per cent of the entire college registration. As the entire registration in the College is 26 ahead of the aggregate of the registration of last year in Columbian College and the College of the Political Sciences, and other conditions are in accord with this increase, we believe there is a wholesome growth in the interest in these subjects in Washington. We have not had the financial resources to develop them as fully as we should like, but we have had a well-rounded curriculum of political science subjects and excellent men, including the coöperation of some Government specialists in this field. Personally I would express the opinion that our experience indicates that the demand for highly specialized instruction of this sort is not as great as was thought at the beginning. About three years ago information from the State Department was to the effect that 21 students from our courses of study had entered the Diplomatic and Consular Service, and figures published last year—for which, however, I cannot give a specific reference—were to the effect that George Washington University is second in the number of its men in the Government service. This large representation of our men is due, I think, as much to our position in Washington and to the fact that the District of Columbia figures very largely in the Government service, as it is to the political science features of our curriculum. It is desirable to develop these courses. The interest in them is always present, and I believe this interest will be growing stronger from year to year.

The situation with respect to the natural sciences in pre-medical courses is as follows:

Our Department of Medicine is one of the "Class A" medical colleges of the American Medical Association, following the requirements of the Council on Medical Education of that Association. In the University catalogue of last year we formulated two curriculum groups forming combination courses with the four-year course in the Department of Medicine. The first combination course is the seven-year course for the degrees of Bachelor of Arts and Doctor of Medicine; the second combination course is a six-year course for the degrees of Bachelor of Science in Medicine and Doctor of Medicine. These are planned for regular college students intending to take college degrees. On January 1, 1914, the requirement for entrance to the Medical School becomes a one-year pre-medical course of specified subjects. The subjects that are emphasized in all of these pre-medical groups are the natural sciences—Chemistry, Physics, and Biology (Zoölogy

and Botany). The requirement for entrance to the Medical School in the immediate future will bring about a registration of students in the College for a one-year pre-medical course, taking the necessary subjects for entering the Department of Medicine. In preparation for this the need of Columbian College in Biology is so great as to make desirable a substantial increase in the budget for the teaching staff and for apparatus. Up to this time Zoölogy and Botany have been to a considerable extent regarded as merely important electives. With a new obligation to the Department of Medicine they are on a very different basis. They must be planned for as an essential part of the curriculum. This new situation in pre-medical study will emphasize the importance likewise of an addition to the staff in the teaching of Physics. The one-year pre-medical students will take the morning laboratory periods in Physics, and the lecture course designed for college students rather than for Engineering students. These are developments of the curriculum.

We have in addition problems of growth. Freshman English is a required subject for all regular students in all the Colleges of the Department of Arts and Sciences. This is taught in two divisions, aggregating in registration in the year 1912-13 about one hundred and fifty, and the registration in this course is increasing each year. It is important that there should be considerable theme writing, and the present provision for the reading and correction of themes is inadequate.

The record of the year 1912-13, the needs that have arisen, are all wholesome indications—a well-prepared student body, an increasing registration, problems of growth, and the new demands incident to the development of our Department of Medicine.

The facts with respect to Columbian College registration and graduation emphasize the importance of the service rendered to the District of Columbia. Practically half of our incoming students bring certificates from the city high schools. In addition, many who bring certificates from elsewhere have become permanent residents of Washington. The larger part of the Washington young people who study with us and receive college degrees would be financially unable to leave Washington for a college education. The absence of opportunities for undergraduate higher education in Washington would mean the withdrawal from public service of all that class that at present is qualified by undergraduate University study. This would be a loss of considerable magnitude in the Civil Service and in the community life of Washington. The three hundred and fifty-three students registered in Columbian College during the year 1912-13, and the thirty-six students who graduated from Columbian College during the year, constitute a mute appeal against the annual plan for a National University, coupled with hostility to this institution and no provision for undergraduate education. Columbian College is doing a service of great importance

to the District of Columbia. An increase of its resources would permit this service to be rendered to a much larger number at present without the opportunities of higher education. There is no other provision for the service we render. The importance of this service to the individual and to the community is so great that it dignifies all the college work.

Respectfully submitted,

WILLIAM ALLEN WILBUR, *Dean.*

TO THE PRESIDENT OF THE UNIVERSITY.

SIR: I have the honor to submit the following report in regard to the College of Engineering for the session 1912-13.

The total registration for the session was as follows:

Former students of the College of Engineering.....	87
New students	99
Students previously registered in other departments of the University.....	10
Total.....	196
Number of men.....	194
Number of women.....	2

These students may be classified as follows:

Candidates for Degrees.

	Freshmen.	Sophomores.	Juniors.	Seniors.	Total.
Arch.	5	2	8	..	15
C. E.	13	9	23	6	51
E. E.	6	4	11	5	26
M. E.	9	6	8	1	24
	33	20	49	12	116
Special students					80
Total.....					196

In years of attendance students are classified as follows:

One year	96
Two years	26
Three years	30
Four years	17
Five years	15
Six years	6
Seven years	1
Eight years	2
	196

The youngest student was 17 years old and the oldest was 43 years old. The average age was about 23 years.

Regular students were admitted to advanced standing on certificates from the following institutions:

- 1 George Washington University.
(A. B. of Columbian College.)
- 2 Columbia University.
- 1 Washington and Lee University.
- 1 Rennselaer Polytechnic Institute.
- 1 Lafayette University.
- 1 Catholic University.
- 1 West Point Military Academy.
- 1 Virginia Polytechnic Institute.
- 1 Valparaiso University.
- 1 Cooper Union, N. Y.
- 1 Cornell University.

Special students were admitted to advanced courses on presentation of evidence of work at the following institutions:

- 1 City College, New York.
- 1 Columbia University.
- 1 University of Michigan.
- 1 Yale University.
- 1 University of Arkansas.
- 1 Throop Polytechnic Institute.
- 1 Brigham Young University.
- 1 Cadet School, Revenue Cutter Service.
- 1 Pennsylvania State Normal School.
- 1 Connecticut Agricultural College.
- 1 New York University.
- 3 George Washington University.
- 1 University of Nebraska.

Students held degrees as follows:

- 1 B. S. in C. E. George Washington University.
- 3 A. B. George Washington University.
- 1 M. E. Columbia University.
- 1 A. M. Washington and Lee University.
- 1 A. B. Yale University.
- 1 S. B. George Washington University.

Students admitted presented evidence of graduation or of work done at the following secondary schools:

McKinley High School.....	31
Central High School.....	2
Western High School.....	4
Eastern High School.....	2
Business High School.....	2
Emerson Institute.....	11
Young Men's Christian Association.....	5
Friends School.....	2
Hall-Noyes School.....	1
Columbia School.....	1
Pearson School.....	1
Crocketts School.....	5

St. Patrick's Academy.....	1
Stuyvesant High School, New York City.....	1
Evening High School New York City.....	1
Bible Teachers Training School, New York City.....	1
Cobblesville High School, New York.....	1
Waterville High School, Maine.....	1
Steelton High School, Pennsylvania.....	1
Kansas City High School.....	1
Philadelphia High School.....	1
Indianapolis High School.....	1
Cedar Valley Seminary, Iowa.....	1
Osage High School, Iowa.....	1
Logan County High School, Oklahoma.....	1
Washington County High School, Maryland.....	1
Reisterstown High School, Maryland.....	1
George Washington High School, Virginia.....	1
Williamsburg Institute, Kentucky.....	1
Marinette High School, Wisconsin.....	1

In a number of instances an entering student had had work at more than one of these preparatory schools.

Of the 99 new students, 40 were registered as candidates for degrees and 59 as special students. Of the 40 regular students, 13 were admitted to advanced standing on evidence of work done at other institutions of a college grade. The 27 remaining regular students had the following admission credits and conditions:

Students.	Admission credits.	Conditions.
3.....	15½	...
5.....	15	...
2.....	15	2
1.....	15	2½
1.....	15	4
1.....	14½	1
2.....	14½	½
1.....	14½	...
1.....	14	4
1.....	14	1½
1.....	13½	4½
1.....	13	4½
1.....	12½	3
1.....	12½	4
1.....	12½	5
1.....	12	3
1.....	11½	4
1.....	11	4
1.....	10½	4½
1.....	10½	5½
1.....	10½	5½

In addition to these conditions, 3 students admitted to advanced standing were charged with 6 condition-units in languages.

The total number of conditions charged against students is 67½. These conditions were in the following subjects:

Modern Languages.....	40½
Mathematics.....	8
Physics.....	1
Chemistry.....	4
Electives.....	5

It will be seen that three-fourths of the conditions imposed were in modern languages. This arises largely from the fact that we require a student to present four units of preparatory work in modern languages, which means that he must study a modern language for four years in a high school. It is quite possible for a student to graduate from a high school without any study of a modern language, and in such a case he may have 15 admission credits, and yet be marked 'conditioned' on entrance to our engineering course. We require, also, four years of high school work in mathematics, and a student may graduate from the non-technical high schools with only two or three years of mathematics.

These conditions are removed by the student taking extra courses in languages and mathematics. A condition in Physics or Chemistry is usually removed after the student has completed the required college courses in those subjects.

The 40 regular students admitted may be classified as follows:

Admitted to advanced standing from other institutions of a college grade.....	13
Graduates of secondary schools.....	22
Unconditioned	8
Conditioned	14
Non-graduates of secondary schools.....	5
Unconditioned	0
Conditioned	5

During the year the total number of withdrawals, voluntary or forced, was 53.

These withdrawals were for the following reasons:

Withdrawals immediately after registration because of change of plans or inability to attend classes at hours fixed	4
Death in family.....	3
Sickness	3
Departure from city.....	4
Change of plans.....	7
Unanticipated changes of outside work and consequent inability to continue studies.....	12
Unsatisfactory work in studies.....	9
Lack of money.....	4
Dropped for non-payment of fees.....	4
Withdrew at end of first term because of completion of courses desired	3

The registrations were as follows:

From October 1.....	184
" November 1	1
" December 1	3
" February 1	8
Total.....	196

The withdrawals were as follows:

From October 1.....	4	
" November 1	2	
" December 1	14	(1 dropped)
" January 1	4	(1 ")
" February 1	17	(2 ")
" March 1	6	
" April 1	2	
" May 1	4	

The number in attendance each month was as follows:

October	180
November	179
December	168
January	164
February	155
March	149
April	147
May	143
Average.....	161

Seven of the students who withdrew during the session have re-entered for the session of 1913-14.

As usual, many changes of studies were made by the students during the session. As a rule, few changes are made by the students who give their entire time to college work, but many are made by the afternoon students. Many students attempt more studies than they are able to continue satisfactorily, and after one or two months find it necessary to discontinue one or more courses in order to complete properly the other subjects. This, of course, is a wise proceeding, and is often done on the initiative and advice of the Dean when reports from instructors indicate that the student is not able to carry all the subjects for which he has registered.

It happens in many cases that changes in home duties or responsibilities, or in office duties, allow the student less time for study, or by their increased exactions leave him less mental vigor for his studies. In many cases, also, the student is compelled to drop part of his work because of his inability to meet the payments for the full course.

The distribution of marks given during the year was as follows:

Grade A (96-100)	12.7%
" B (90-95)	20.7
" C (80-89)	27.4
" D (70-79)	22.6
" E (Failure)	16.6

From the information I have, I judge these marks average about the same as in other engineering schools. I think there is no doubt that the marking in the liberal arts studies, here as well as in other universities, is higher than in technical subjects. This is very far from indicating that technical students are less capable than other students.

It indicates, partly, that technical instructors are more exacting in their requirements than are other instructors; but mainly it is merely a consequence of the nature of the subjects of instruction, which permits and requires more exactness in deciding the rightness or wrongness of an answer.

At the Commencement in June, 1913, the following degrees were conferred:

Bachelor of Science in Civil Engineering.....	6
" " " " Electrical Engineering.....	5
" " " " Mechanical Engineering.....	1

By vote of the Faculty, the degree was awarded "with distinction" in four cases.

Respectfully submitted,

H. L. HODGKINS, *Dean*.

TO THE PRESIDENT OF THE UNIVERSITY:

SIR: I have the honor to submit the following report upon the work of Teachers College for the year 1912-1913:

Enrollment:	
Men	8
Women	79
Total.....	87
Withdrawals	10
In attendance May, 1913.....	77

The number of completed registrations (87) was the same as the corresponding number for the year 1911-1912, on January 1, 1912, when Dean Hough's report was submitted. For the year 1913-1914 the number has already (December 18th) reached 127.

Of the 87 students enrolled, 39 were new to Teachers College, although only 34 of these paid the matriculation fee, the others having paid it before in some other department of the University.

Classes of Students:	
Regular	79
Special	8
Total.....	87
Admission—Regular students:	
Without conditions.....	75
With conditions.....	4
.....	79

I am making it my practice to admit as special students only those who cannot fully satisfy the entrance requirements and who do not, when entering, aim to get the degree and the diploma. It is ascertained, however, that these students have had enough preparatory work to profit by the courses taken in the University.

The itemized entrance credits of the students in Teachers College on record in this office are distributed as follows:

Admitted Unconditioned.

No. of students.	Secondary sch. credits.	Equivalent credits.	Total credits.
1	12 1/2	2 1/2	15
1	13	2	15
2	14	1	15
1	0	15	15
1	13 1/5	2	15 1/5
1	14 1/2	1	15 1/2
1	15 1/2	2	17 1/2
1	17	1	18
21	15-16	0	15-16
14	16-17	0	16-17
9	17-18	0	17-18
1	19 1/2	0	19 1/2
54			

Admitted Conditioned.

1	12	0	12
1	0	12 1/5	12 1/5
2			

These figures account for 56 of the 79 students that have been admitted to regular standing. Of the remaining 23, 16 are graduates of a Washington high school and of the Washington Normal School, while the other 7 are graduates of other standard secondary schools. Six of these 7 are also graduates of normal schools other than the Washington Normal School.

The "equivalent credits" for the unconditioned student with 15 credits were granted by Dean Hough on the basis of admission by examination to the Maryland State Normal School, of which school the student is a graduate. The 12 1/5 credits for the conditioned student were granted by Dean Hough on the basis of a Virginia professional teacher's certificate. One of the other "equivalent credits" was granted for work done in French with a tutor, while the others were all granted to teachers of experience for subjects with which they had become familiar through teaching, but which they had not pursued in the high school. Among these subjects American History appears more frequently than any other.

Seventy-seven of the 79 regular students were graduates of secondary schools, about two-thirds coming from the Washington high schools. Sixty-one were normal or training school graduates, 45 from schools located in Washington, and 16 from schools outside of Washington. This, it seems to me, indicates a commendable relationship between Teachers College and teachers' training schools of normal school grade.

Five of the 87 students registered were college graduates. Three of these were candidates for the A. B. degree and Bachelor's Diploma in Education; one was a candidate for the Diploma only, and one was registered as a special student.

The extent to which Teachers College appeals to people who wish to continue or extend their education while employed is indicated by the fact that 69 of the 87 students enrolled were teachers in service, mostly in the Washington schools, and 7 were in the Government service. This, it seems to me, is again worthy of more than passing notice. It is now considered desirable for people in all lines of work to continue their education while employed, and this is especially true in the profession of teaching. A person is mentally not prepared for the adequate assimilation of educational theory without teaching experience, and the closer in time that this experience lies to the study of the theory the better. This is one reason why it is considered indispensable to provide facilities for observation and practice teaching for students in training who have not taught.

Opportunities for observation and practice teaching are now courteously extended to Teachers College students by the authorities of the Washington public schools. For this courtesy we are, and should be, duly grateful, but because it gives us only partial direction of the work the arrangement is not ideal. A model and practice school under our own direction would be better. Still, it is my opinion that we should proceed very cautiously in establishing one. Such a school would entail considerable expense, and would need to be under tried and reliable guidance. It may be possible at some time to effect an affiliation with one of the better private schools in the city, and I have for some time been on the lookout for the opportunity of making such an affiliation.

A model, practice, and experimental school stands in the same relation to a teachers' college as a moot court does to a law school, a work shop to an engineering school, or a hospital to a medical school. It is needed to give the students examples of efficient teaching, to give them an opportunity to gain practical experience, and it is needed especially by the faculty to exemplify the application of educational principles and to make advances in educational organization and practice.

The need of establishing a model and practice school is increasing from year to year. We have this year five seniors who are taking both observation and practice teaching, and seven others, mostly juniors, who are taking observation only, with the intention of doing their practice teaching next year. The reason that these students are taking their observation now is because I have entered upon the policy of having the observation work done in the junior year and the practice work in the senior year. This puts the student into practical contact with school work during the entire period in which he is studying educational theory.

The complaint is sometimes made that students who are employed do

not find time for the satisfactory preparation of their school work, but this complaint does not apply to the teachers in service enrolled in Teachers College. The scholarship of these teachers is usually high, comparing favorably with that of the full time students, and is perhaps even less often unsatisfactory. The records of 9 full time students and 66 part time students last year were as follows:

	A.	B.	C.	D.
Full time	40%	33%	23%	4%
Part time	37%	46%	15%	2%

A grade of failure was not scored against any Teachers College student last year, although in five instances, owing to sickness or the discontinuation of the work, final examinations were not taken, and therefore the grade of "F" was assigned.

The work pursued by the students was divided between the professional subjects offered by Teachers College and the academic subjects offered by Columbian College in the ratio of about one to five. This is the expected ratio, both from the standpoint of the Teachers College course, which is about one-sixth professional in the narrow sense, and from the standpoint of preparation for teaching. This preparation includes the pursuit of academic as well as technical professional subjects. These two types of subjects should, and usually are, pursued abreast. Students should logically devote the freshman and sophomore years to academic work, taking psychology and logic, and perhaps sociology and ethics, in preparation for the professional subjects, and then pursue the professional subjects alongside of additional academic subjects in the junior and senior years. This enables a student to earn both the Bachelor of Arts degree and the Bachelor's Diploma in Education in four years.

No change was made during the year in the number of units necessary for graduation, but in the specific subjects required for graduation the faculty authorized changes of considerable importance. Into the details of these changes it is not necessary to go at this point, they being indicated in the catalogue for 1913, but the principles underlying the changes may be mentioned. The changes in the academic subjects were guided by the principle of correlating the college requirements with the secondary school work done by the student. This tends to avoid gaps in some departments of knowledge and wasteful duplication in others. In the professional subjects greater freedom of election was provided for, but without changing the number of units required in this field for graduation.

In concluding this report, I desire respectfully to make record of the sudden and untimely death of Prof. Williston S. Hough, who died after an illness of three days on September 18, 1912, at the age of 51 years. It is to Professor Hough that the present successful condition of the Teachers College must be primarily accredited. He was at the head of the pedagogical work from its inception in this institution. During the

years 1907-1909 he was Professor in Charge of the Division of Education, and when this Division was changed to Teachers College in 1909 he was logically elevated to the position of Dean, in which position he continued until his death. His connection with the University dated from 1905, when he was appointed Professor of Philosophy in Columbian College, a position which he held also until his death. Professor Hough was a man of culture and refinement, a man of broad training and experience, a ripe and thorough scholar, and a precise and incessant worker. His loss to the University, and in particular to the Teachers College, is great.

Respectfully submitted,

W. C. RUEDIGER, *Dean*.

Nov. 13, 1913.

TO THE PRESIDENT OF THE UNIVERSITY.

SIR: I have the honor to render the following report on the School of Graduate Studies.

The total number of students enrolled for the academic year 1912-1913 was 92, divided as follows:

Students in attendance.....	11
Candidates for the C. E. degree.....	5
" " " E. E. " 	3
" " " M. S. " 	21
" " " A. M. " 	27
" " " D. C. L. " 	1
" " " Ph. D. " 	24
.....	—
Total.....	92

The total number of degrees awarded during that academic year was 23, divided as follows:

Degree of C. E.	4
" " E. E.	1
" " M. S.	7
" " A. M.	8
" " Ph. D.	3
.....	—
Total.....	23

The enrollment for 1912-13 was exceeded six times in the history of the school, viz., in 1907-8, when there were 94 enrolled; 1901-2, with 96; 1899-1900 and 1902-1903, with 99; 1900-1901, with 109, and 1908-1909, with 114. The number of degrees conferred, 23, was the same as in 1909, and was exceeded by 1903 with 24, 1901 with 27, and 1900 with 31.

Because of the many different degrees sought, and because in the case of those students seeking the same degree the topics chosen are widely differing, it is not as feasible here as it is in the case of undergraduate and professional students, where a large number pursue the same courses of study year after year, to compare one student or one class of students with another so as to rate them. This is especially

true when the theses, which constitute the most significant feature of graduate work, are considered, for these may vary in merit from evidences of marked originality without unusual evidences of industry, to marked evidence of industry with but little evidence of originality. They may be the result of unusual aptitude for experimental inquiry and skill in physical manipulation or of unusual aptitude for tracing information to its sources, compiling the data or information, arranging it so that significant results may be set forth, and discussing it logically and preferably mathematically, so that laws may be deduced. The topic for the research, the results of which are embodied in the dissertation and maintained in the thesis, may have been chosen by the candidate with the approval of his preceptor, and thus markedly indicate the students' power of initiative, or it may have been selected and assigned to the student by the preceptor, and may even be but an extension of a research initiated by the preceptor, and thus be for the student in a sense imitative, and affording only an opportunity for displaying the extent of his training and his skill in manipulation, observation, or search. And then the results of a search or research, even for those investigators of equal experience, training, ability, and character, may, because of the character of the topics chosen or the extent to which they have been cultivated, vary from those which are epoch-making to those which are simply useful.

Bearing all of these conditions in mind, in response to your inquiry I give it as my opinion, after conference with professors conducting the work, that while the group of students engaged in one topic of study may show no one who measures up in originality, imagination, and capacity for initiative displayed by some of their predecessors, it is otherwise in other groups, and that the average stands as high today as at any previous time.

At the organization of this school it was decided that applicants to be admitted to candidature for its degrees must possess a baccalaureate degree in arts or science or its equivalent, and that the diplomas of graduation from the U. S. Military or Naval Academies should rate for entrance as baccalaureate degrees in Science. From examination of the records of the 92 students enrolled in this school in 1912-13, it appears that though 9 were admitted without possessing academic degrees, the other 83 held 110 degrees, of which 41 had been awarded by The George Washington University, and 68, or 61.8 per cent, by 42 other institutions of learning. The degrees from The George Washington University were M. Dip., 2; LL. B., 3; LL. M., 2; M. P. L., 2; M. D., 1; B. S., 15; A. B., 7; M. S., 3; A. M., 7. The degrees from the other 42 institutions were U. S. N. A., 4; LL. B., 4; LL. M., 1; B. D., 1; S. T. B., 1; C. E., 1; Met. E., 1; Ph. B., 2; B. S., 18; A. B., 23; M. S., 2; A. M., 9; Ph. D., 1. The following table sets forth the names of these other institutions and the degrees they conferred upon these candidates, and it forcibly emphasizes the fact of the wide area of territory from which the student body is drawn and its varied academic experience.

[illegible]

Among the nine holding no baccalaureate degrees it is to be observed that two were auditors. The others had fulfilled all or nearly all the requirements for the bachelor's degree and were permitted to enter on graduate work, but not to complete it, before receiving this degree.

In the case of each student entering into candidature for a Master's degree who did not possess a baccalaureate degree, the candidate's record was investigated by the Dean of an undergraduate faculty and certified to the Graduate Faculty, and this certification was considered by the Graduate Faculty in regular session. This is the practice that has obtained since this Graduate School was organized, and since then no person has been admitted to candidature for an engineering, master of arts or science, or a doctor of philosophy degree at this University except by a vote of the faculty at a stated faculty meeting after the student's application and his credentials and certificates have been brought to the attention of the faculty. Of the 92 students enrolled in 1912-13 there were 7 that were by vote of the faculty granted advanced standing, viz: One candidate for the A. M. degree granted credit on a minor for graduate work done at the University of Illinois; one candidate for the A. M. degree granted credit for a minor and the major, except the thesis, for work done at Oxford University, England; one candidate for the Ph. D. degree granted one year's credit for research work performed after having attained his master's degree and which was submitted in published form; one candidate for the Ph. D. degree granted one year's credit for graduate work done at the University of Wisconsin subsequent to receiving his A. M. degree and for researches shown in publications; one candidate for the Ph. D. degree granted credit on a minor for the work of this minor carried on at this University as a special student before admission to candidature for this degree; one candidate for the Ph. D. degree granted credit on one minor for graduate work in this topic carried on partly at the University of Wisconsin and partly as a special student at this University prior to admission to candidature for this degree, and one candidate for the Ph. D. degree granted credit on both minors for graduate work done at the Johns Hopkins University. All of these cases were investigated, the results presented to the Faculty, and the action taken by vote of the Faculty. In no case has the action by the Faculty actually shortened the time of residence or work at the University. It has operated to afford more time for thesis work.

Besides these credits, one candidate for the A. M. degree has been granted leave of absence to satisfy a minor in Archaeology by study at the School of American Archaeology; a candidate for a Ph. D. degree has been granted leave of absence to satisfy a minor in Archaeology by study in the American School of Classical Archaeology at Rome, and another candidate for the Ph. D. degree was granted a year's leave of absence to pursue his studies in Economics, History, and Sociology at the universities in Germany. Since the founding of this School we

have granted leaves of absence to students wishing to do part of their work elsewhere, and we have credited such work when properly certified.

At the founding of the School it was decided to recognize the LL. B., M. D., B. D., or similar professional degrees, as the equivalent of a master's degree, provided the applicant also possessed a baccalaureate degree in arts or science or its equivalent also. Under these circumstances the minimum time in which a candidate may attain the Ph. D. degree is two years. This practice has been adhered to ever since.

The following table sets forth the number and percentage of the students for 1912-13, in the first and following years of their enrollment for the degree sought:

Number of Students in Various Years of Enrollment.

Year.	Number.	Per Cent.
First	56	60.9
Second	15	16.2
Third	11	12.0
Fourth	4	4.3
Fifth	3	3.3
Sixth	1	1.1
Seventh	1	1.1
Eighth	1	1.1

One candidate for the A. M. degree had been enrolled four years. All other of those whose time of enrollment was four or more years were candidates for the Ph. D. degree. All but one had fulfilled all the academic requirements except the thesis requirement, and this was true of some in the lower categories. From the outset it has been recognized that graduate work must be deliberate and unhurried, and furthermore that many of our students are engaged in other occupations, most of them being self-supporting and in repeated instances maintaining others. Hence they have not been held to a time limit, but to the completion of the educational requirements. It may be proper in this connection to call attention to the fact that the University furnishes no pecuniary aid to graduate students, though it has in a few instances accepted service in satisfaction of fees, and some of these relations exist in the higher categories of the last given table.

At the organization of the School of Graduate Studies mature consideration was given to the principle which should dominate it. A survey of the then existing schools showed that in some the higher degrees were awarded because of success in the acquisition of knowledge, while in others these degrees were awarded for success in research. It was determined to accept the latter principle and to make research, as set forth in a thesis, the *sine qua non* for securing a diploma. Of course attention was focused on the Ph. D. degree, and the requirements for the lower degrees were graded down from those demanded in satisfaction of this highest degree. The requirements for the Ph. D. degree

are that the candidate shall possess a baccalaureate degree in arts or science, or its equivalent, from an institution of repute; that he shall spend three years in residence study of a major and two correlated topics, and pass satisfactory examinations thereon; that he shall demonstrate his ability to read and render into English works published in French and in German on his topics, and that he shall present a thesis which shall be a contribution to knowledge; shall be accompanied by an exhaustive bibliography; shall be approved to the Faculty by the preceptor supervising or directing the research and by a co-referee from the Faculty, and shall be publicly defended before a Board of Experts not connected with the Faculty, who shall in writing state whether or not they recommend the acceptance of the thesis and the awarding of the degree.

The Master's Degree in Arts or Science is awarded for one year's residence study of a major and two minor topics and the presentation of a thesis showing marked attainment, preferably by original research, accompanied by a bibliography.

The Engineering degrees are awarded to candidates possessing baccalaureate degrees in engineering who pass one year in residence study of an engineering major and two engineering minors and present an acceptable thesis.

More recently a Liberal Culture course has been introduced for those seeking the Master's degree, but who do not aim to become specialists, and in this course the emphasis is placed upon the acquisition of rather than the extension of knowledge.

A topic, as the term is used above, is the whole or a portion of a University subject. The University subjects offered for study by the University from which a candidate's selection may be made are:

Agriculture, Applied Mathematics, Architecture, Astronomy, Astrophysics, Bacteriology, Botany, Chemistry, Classical Archaeology, Economics, Education, Civil Engineering, Electrical Engineering, Hydraulic Engineering, Mechanical Engineering, English, Ethics, Geology and Mineralogy, Germanic Languages and Literature, Greek Language and Literature, Histology and Embryology, History, History of Art, International Law and Diplomacy, Latin Language and Literature, Law, Mathematics, Meteorology, Pathology, Philosophy, Physics, Physiology and Pharmacology, Political Sciences, Preventive Medicine, Psychology, Romance Language and Literature, Semitic Languages and Literature, Sociology, Zoölogy.

For the Liberal Culture courses the "candidates are required to complete three full courses of study of two to three hours each, distributed among three University subjects, not more than six hours of which shall be given to any one subject." In the Specialists' courses the amount of work required is equal to this, and often greater in amount than this, but a larger proportion of the time is spent in library, laboratory, and conference work. The amount of work required will vary with the nature of the subjects chosen, the degree of attainment of the

particular student, and the degree sought. Taking everything into consideration, it may be distinctly stated that specialists' work cannot be measured in time units. It can only be measured by results, and such time, be it greater or less than that demanded in satisfaction of a Liberal Culture degree, must be given as will permit of the achievement of results. The candidates for the Doctor of Philosophy degree are measured by this standard, and many who enter upon the course fail to measure up to it.

The studies pursued by the students enrolled in 1912-13 and the number pursuing each of the subjects named either as majors or minors, or both, is set forth in the following table. A considerable percentage of them had in previous years satisfied the study requirements, but had the thesis requirements yet to fulfill. These are indicated in the table, under their major topics, by Th. They were not the only students engaged on thesis work, for several in the lower grades, possessing either unusual ability or opportunity, fulfilled both their study requirements and thesis requirements within the year:

Subjects of Study Pursued in 1912-13, and Number of Students in Each.

Applied Mathematics.....	1
Anatomy	1
Bacteriology	7
Botany	1
Chemistry—Th. 7	20
Classical Archæology.....	6
Economics—Th. 2.....	2
Education—Th. 1.....	3
Engineering:	
Civil—Th. 2.....	3
Electrical—Th. 1.....	2
Mechanical	2
English—Th. 3.....	9
Geology and Mineralogy.....	4
Germanic Language and Literature—Th. 1.....	3
Greek Language and Literature.....	1
Histology and Embryology.....	2
History—Th. 3.....	11
History of Art.....	2
International Law and Diplomacy—Th. 1.....	2
Latin Language and Literature.....	1
Mathematics	3
Microscopy	1
Palæontology	1
Pathology	2
Philosophy	2
Physics	4
Political Science—Th. 1.....	3
Psychology	2
Romance Language and Literature.....	4
Zoölogy—Th. 1.....	8

From the foundation of the Graduate School the salaried teaching force of the University has been supplemented in its graduate work by

specialists from among the many drawn to Washington to engage in the scientific activities of the Government or the organizations built up about it.

The specialists who have directed work of graduate students during 1912-13, with their subjects and the number of students enrolled for courses under them, are:

Assistant Professor Alden, History—Th. 1.....	1
Professor Carroll, Archaeology and History of Art....	8
Mr. Churchill, History.....	2
Dr. Curtis, Physics.....	4
Professor Bartsch, Zoölogy—Th. 1.....	8
Assistant Professor Bassler, Geology and Mineralogy..	4
Assistant Professor Bassler, Palæontology.....	1
Mr. Esterline, Economics—Th. 1.....	0
Mr. Fraser, Mathematics.....	3
Assistant Professor Hopkins, Chemistry—Th. 1.....	0
Professor Howard, Microscopy.....	1
Mr. Harrington, Botany.....	1
Assistant Professor Price, Chemistry.....	3
Professor Russell, Bacteriology and Pathology.....	8
Dr. Stiles, Zoölogy.....	1
Mr. Van Orstrand, Mathematics.....	3
Professor Veditz, Sociology.....	1
Assistant Professor Wiley, English.....	1

Several other specialists offered topics which were not taken during the year.

The regular members of the teaching staff of the University who directed the work of graduate students during 1912-13, with their subjects and the number of students enrolled for courses under them, were:

Applied Mathematics, Professor Dunstan.....	1
Anatomy, Professor Kollig.....	1
Chemistry, Professor Munroe,	} Th. 6..... 17
Assistant Professor Swett,	
Assistant Professor McNeil,	
Mr. Ingersoll,	
Economics, Assistant Professor Kern—Th. 1.....	2
Education, Professor Ruediger—Th. 1.....	3
Engineering, Professor Hodgkins,	} Th. 3.. 7
Professor Dunstan,	
Professor Mechlin,	
Assistant Professor Mortimer,	
Assistant Professor Harris,	
Mr. Woodward,	} 8
English, Professor Wilbur—Th. 3.....	
Germanic Language and Literature, Professor Schoenfeld—Th. 1.....	3
Greek Language and Literature, Professor Smith.....	1
Histology and Embryology, Dr. Briggs.....	2
History, Professor Swisher—Th. 2.....	8
International Law and Diplomacy—	}
President Stockton—Th. 1,	
Assistant Professor Moore,	2
Latin Language and Literature, Professor Smith.....	1
Philosophy, Professor Richardson.....	2

Political Science, Assistant Professor Moore—Th. I.	3
Psychology, Professor Ruediger	2
Romance Language and Literature, Professor Henning	4

With the founding of the School of Graduate Studies in 1893 advantage was taken of the following Joint Resolution of Congress which was enacted April 12, 1892, for the purpose of promoting research and the diffusion of knowledge, and each year since numbers of our students have availed themselves of these privileges:

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the facilities for research and illustration in the following and any other governmental collection now existing or hereafter to be established in the city of Washington for the promotion of knowledge shall be accessible, under such rules and restrictions as the officers in charge of each collection may prescribe, subject to such authority as is now or may hereafter be permitted by law, to the scientific investigators and to students of any institution of higher education now incorporated or hereafter to be incorporated under the laws of Congress or of the District of Columbia, to wit:

1. Of the Library of Congress.
2. Of the National Museum.
3. Of the Patent Office.
4. Of the Bureau of Education.
5. Of the Bureau of Ethnology.
6. Of the Army Medical Museum.
7. Of the Department of Agriculture.
8. Of the Fish Commission.
9. Of the Botanic Gardens.
10. Of the Coast and Geodetic Survey.
11. Of the Geological Survey.
12. Of the Naval Observatory.

The extent to which graduate students made use of the University laboratories and of other laboratories is set forth in the two following tables:

Students Who Have Pursued Studies in the Laboratories of this University in 1912-13.

Anatomy	2	Histology	1
Bacteriology	5	Microscopy	1
Chemistry	20	Pathology	1
Engineering	3		

Students Who Have Pursued Studies in Other Laboratories in 1912-13.

Bacteriology, University of the South	1
Chemistry, Bureau of Chemistry, Department of Agriculture, 3; Bureau of Mines and Naval Laboratory, 2; Internal Revenue Commissioner, Treasury Department, 1; General Electrical Co., 1; University of the South, 1; total	8
Geology, U. S. National Museum	3
Mineralogy, U. S. National Museum	1
Palæontology, U. S. National Museum	1
Zoölogy, U. S. National Museum	6

At all times the officials of the Library of Congress and of the many special libraries of the Government have treated our students with special consideration, and liberal use has been made by graduate students of these rich resources. I regret that it is not possible to statistically present the extent of such use.

The School of Graduate Studies opened its doors for the enrollment of students in September, 1893. The beginning of the present session marked the completion of twenty years' work, and it seems fitting, therefore, to statistically present the results. These are set forth in the following tables, the first of which gives the enrollment for each year under each category and *in toto*:

Enrollment in School of Graduate Studies, 1893-1913.

[illegible]

This table necessarily contains duplications: first, where a student has been enrolled for several years in the pursuit of a degree, as is notably the case with candidates for the Ph. D. degree; and, second, where a student has been enrolled at the same time for two degrees, such as A. M. and Ph. D. The latter cases are relatively few. The successive enrollment of a student first for a Master's degree, which he wins, and then for a Doctorate degree, as included here, is no more a duplication than if he were two different persons.

Inspection of the table shows an almost steady gain from the foundation of the school up to 1900. From an enrollment of 109 in that year it commenced to drop until it reached 53 in 1903, then rose fitfully to 114 in 1908, the largest enrollment ever reached, when it dropped again, reaching 55 in 1910, and then slowly rose. The two critical low points were reached in 1903, following a reorganization which bred dissatisfaction and uncertainty, and 1910, following severe public attacks on the administration of the University. The other fluctuations are not accounted for.

The operation of the school and its results are better shown in the second table, which sets forth the number of degrees awarded each year in each category and *in toto*:

Degrees Conferred on Graduate Students, 1894-1913.

Year.	C. E.	E. E.	M. E.	M. S.	A. M.	D. C. L.	Jur. D.	Ph. D.	Total.
1894.....	...	...	...	3	8	...	...	4	15
1895.....	...	...	...	10	7	...	...	1	18
1896.....	...	...	...	8	4	...	...	2	14
1897.....	...	...	...	4	6	...	...	3	13
1898.....	1	1	...	5	13	...	...	1	21
1899.....	2	...	...	10	10	...	...	...	22
1900.....	3	1	2	7	13	...	...	5	31
1901.....	...	...	2	11	12	...	...	2	27
1902.....	1	...	1	6	13	...	...	2	13
1903.....	1	3	...	7	9	...	...	4	24
1904.....	3	...	...	3	9	...	...	3	18
1905.....	1	...	3	6	3	...	...	4	17
1906.....	2	2	1	6	3	...	...	2	18
1907.....	...	...	...	2	5	...	...	6	13
1908.....	3	1	...	2	6	...	...	3	15
1909.....	...	2	...	5	12	...	...	4	23
1910.....	1	2	...	...	12	...	...	4	10
1911.....	2	...	...	1	3	1	...	6	13
1912.....	...	1	...	1	3	...	...	2	7
1913.....	4	1	...	7	8	...	...	3	23
Grand total.....	24	14	9	104	161	1	...	61	364

This table shows the degrees awarded to rank by number in the following order: A. M., M. S., Ph. D., C. E., E. E., M. E., and D. C. L. The average number conferred yearly has been closely to A. M., 8; M. S., 5; Ph. D., 3; C. E., 1.2; E. E., 0.45. The percentage of the total number for each category is A. M., 44.7; M. S., 28.6; Ph. D., 16.7; all others, 9.

The most important of these degrees, and the one whose conferring by the University is most carefully inquired into, is the Doctor of Philosophy degree. It is almost generally required that ability to conduct research as evinced by a suitable thesis shall be a prerequisite for winning this degree. It is also generally accepted that a candidate for this degree should not only possess the necessary prerequisite training as indicated by the holding of a baccalaureate degree and of a master's degree or their equivalents, but that he should be mature in years and thought and experience. From the outset this school has set these requirements. To show the result, I have compiled the following table, which shows for each person on whom the degree of Doctor of Philosophy has been conferred on recommendation of the Faculty of Graduate Studies, the year of graduation, the number of years he was in residence at this University in candidature for this degree, and the number of years which elapsed between his having received his baccalaureate degree and his doctorate degree.

List of Ph. D. Degrees Conferred, with Time of Residence at this University and Elapsed Time from Reception of the Baccalaureate Degree.

Ph. D. Degree conferred.	Entrance.	Time of residence.	Baccalaureate Degree conferred.	Elapsed time.
1894.....	1893	1	.....	...
1894.....	1893	1	1880	13
1894.....	1893	1	1884	10
1894.....	1893	1	1881	13
1895.....	1893	2	1882	13
1896.....	1894	2	1884	12
1896.....	1894	2	1864	22
1897.....	1895	2	1879	16
1897.....	1894	3	1893	4
1897.....	1895	2	1883	14
1898.....	1895	3	1885	13
1898.....	1897	3	1884	16
1900.....	1898	2	1886	14
1900.....	1897	3	1891	9
1900.....	1898	2	.....	...
1900.....	1898	2	1878	22
1900.....	1898	2	1891	10
1901.....	1898	4	1891	7
1901.....	1899	2	1893	11
1902.....	1898	4	1891	3
1902.....	1900	2	1899	28
1903.....	1901	2	1875	...

List of Ph. D. Degrees Conferred—Continued.

Ph. D. Degree conferred.	Entrance.	Time of residence.	Baccalaureate Degree conferred.	Elapsed time.
1903.....	1899	4	1897	6
1903.....	1901	2	1898	5
1903.....	1901	2	1896	7
1904.....	1902	2	1858	46
1904.....	1903	1	1884	20
1904.....	1903	1	1885	19
1905.....	1903	2	1902	3
1905.....	1904	1	1896	9
1905.....	1904	1	1893	12
1905.....	1900	5	1894	11
1906.....	1904	2	1896	10
1906.....	1903	3	1899	7
1907.....	1905	2	.....	.....
1907.....	1905	2	1899	8
1907.....	1905	2	1904	3
1907.....	1905	2	1894	13
1907.....	1906	1	1904	3
1907.....	1905	2	1902	5
1908.....	1907	1	1900	8
1908.....	1905	3	1900	8
1908.....	1904	4	1897	11
1909.....	1906	3	1899	10
1909.....	1906	3	1906	3
1909.....	1905	4	1900	9
1909.....	1906	3	1905	4
1910.....	1906	4	1906	4
1910.....	1906	4	1900	10
1910.....	1905	5	1884	26
1910.....	1908	2	1899	11
1911.....	1907	4	1900	11
1911.....	1909	2	1908	3
1911.....	1910	1	1902	9
1911.....	1905	6	1891	20
1911.....	1910	1	1891	20
1911.....	1907	4	1906	5
1912.....	1908	4	1904	8
1912.....	1910	2	1906	6
1913.....	1908	5	1904	9
1913.....	1905	7	1897	16
1913.....	1905	7	1889	24

From inspection it appears that three of these recipients of the Ph. D. degree held no baccalaureate degree. In two instances these persons had been admitted to and had been students at German universities. In the third case the person was very mature and widely and favorably known among scholars for the variety, breadth, and accuracy of his scholarship. Omitting these three, the average elapsed time from their baccalaureate to their doctorate degrees for the other

58 recipients of the latter degree from this University is 11.9 years. The minimum time permitted by the University is three years, and in no instance except in the case mentioned has an exception been made. It may prove of interest to analyze this feature further; hence in the following table the number in each group, by periods, is set forth:

Number in Each Category on which Ph. D. Degrees were Conferred.

Ph. D. degree conferred	3 years after baccalaureate.....	6
" " "	3 to 5 years after baccalaureate.....	6
" " "	5 to 10 years after baccalaureate.....	16
" " "	10 to 15 years after baccalaureate.....	14
" " "	above 15 years after baccalaureate.....	16

This shows most forcibly that this Faculty has safeguarded the Doctor of Philosophy degree from the standpoint of the requirement of maturity, as well as from all other standpoints. I question if any other school will stand as high in this regard as this one does.

In inspecting the table it is observed that in twelve instances the Ph. D. degree was conferred after one year's residence in this University. In every instance but one, as my memory serves, the candidate had done graduate work elsewhere and came with credit to this University. The one instance is that of the mature scholar alluded to above, and who was the first person to receive the degree on recommendation of this Faculty. Such a recommendation has not been made since, nor do I think it will be made again.

In order that the circumstances under which the Doctor of Philosophy degree has been conferred in course by this University since the foundation of the School of Graduate Studies, there is set forth here the name of each person upon whom it has been conferred from 1894 to 1913, inclusive, together with the major topic, the degrees held by the candidate, the source from which they came, the title of his thesis, and the place of its publication.

1894.

*Edward Farquhar,

(Greek)

Thesis: Elements of Unity in the Homeric Poems. (Conservative Review, vol. iii, June-September, 1900.)

Walter Scott Harshman,

(Theoretical Astronomy)

B.S., 1880, Western Reserve; M.S., 1892, Columbian University.

Thesis: Investigation of the Motion of the Pericentre of Deimos. (Astronomical Journal, Boston, vol. xiv, pp. 145-148, 1894.)

Professor Frank Hall Knowlton,

(Botany)

B.S., 1884, M.S., 1887, Middlebury.

Thesis: The Flora of the Laramie Group and Allied Formations. (Not published.)

Claude Augustus Oscar Rosell,

(Chemistry)

M.A., 1881, University of Pennsylvania; LL.B., 1886, Georgetown University.

Thesis: Investigation of the Properties of Ferric Acid. (J. Am. Chem. Soc., vol. xvii, pp. 760-769, 1895.)

1895.

- George Wesley Hamner, (History)
 B.A., 1882, M.A., Hiawassee College; LL.B., 1885, University of Alabama;
 LL.M., 1886, Georgetown University.
 Thesis: Researches upon the Government of the Creek Indians. (Not published.)

1896.

- Edward Clark Hudson, (Greek)
 B.A., 1884, M.A., 1894, Hiawassee College; M.A., 1894, Columbian University.
 Thesis: Investigation into the Use of the Genitive Case in Greek. (Not published.)
- Rev. James Stephen Lemon, (Psycho-physics)
 B.A., 1864, M. A., 1867, Wesleyan University, Middletown, Conn.
 Thesis: The Skin Considered as an Organ of Sensation. (Published separately, 1898, 70 pp.)

1897.

- Professor Charles Arthur Hollick, (Palæobotany)
 Ph. B., 1879, Columbia College.
 Thesis: Palæobotany of the Yellow Gravel at Bridgeton, N. J. (Not published.)
- John Scott Johnson, (Philosophy)
 B.S., 1893, M.A., 1894, Columbian University.
 Thesis: The Influence of French Thought on the Formation of the Constitution of the United States. (Not published.)
- Timothy William Stanton, (Palæontology)
 B.S., 1883, M.S., 1895, University of Colorado.
 Thesis: A Comparative Study of the Lower Cretaceous Formation and Faunas of the United States. (Jour. of Geology, pp. 1-49, September-October, 1897.)

1898.

- *Cabell Whitehead, (Chemistry)
 B.M., 1885, Lehigh University; M.S., 1895, Columbian University.
 Thesis: A Study of the Tellurides; Their Formation and Chemical Properties. (G. W. U. Bull., 5 [4], 65-68, 1906.)

1900.

- *Eugene A. Byrnes, (Physical Chemistry)
 B.A., 1884, Michigan University; LL.B., 1887, LL.M., 1888, Columbian University.
 Thesis: Experiments on the Direct Conversion of the Energy of Carbon into Electrical Energy. (1, "Voltage Cells with Fused Electrolytes"; 2, "Notes on Metallic Diaphragms." Trans. Amer. Electrochemical Society. Vol. 2, pp. 113-121. Vol. 4, p. 135.)
- Rev. Benjamin Alfred Dumm, (Philosophy)
 B.A., 1886, M.A., 1889, Western Maryland College.
 Thesis: The Concept of Self in the Analysis of Experience. (Not published.)

*Deceased.

Professor Charles Russell Ely, (Chemistry)

A.B., 1891, A.M., 1897, Yale College.

Thesis: Investigation of the Phenomenon of Deliquescence and the Capacity of Salts to Attract Water Vapor. (G. W. U. Bull., 5 [4], 69-74, 1906.)

Ernestine Fireman, (Chemistry)

M.S., 1898, Columbian University.

Thesis: The Action of Phosphonium Iodide on Tetra and Penta Chlorides. (Am. Chem. Jour., 30, 116-133, 1903.)

Charles Moore, (American History)

A.B., Harvard; M.A., 1898, Columbian University.

Thesis: The Northwest under Three Flags. (Published separately by Harper & Bros., New York, 1900, 402 pp.)

1901.

William Hamilton, (American History)

B.A., 1891, Moravian College, Pennsylvania; M.A., 1894, Columbian University.

Thesis: The Expansion of Russia to the Eastward. (Not published.)

Chohei Shirasu, (Economics)

Graduate, 1893, Doshisha University, Japan; A.M., 1899, Yale University.

Thesis: The Development of Commerce in Japan and its Effect on Civilization. (Summary of Commerce and Finance for December, 1901, Bureau of Statistics, U. S. Treasury Department, pp. 2277-2315.)

1902.

Rev. Frank Leighton Day, (Anthropology)

B.A., 1891, M.A., 1896, Roanoke College; B.D., 1895, Vanderbilt University.

Thesis: Did the Semites Pass through a Totem Stage? (Not published.)

Nevil Monroe Hopkins, (Chemistry)

B.S., 1899, M.S., 1900, Columbian University.

Thesis: Some Experiments on Electrolytic Conductivity with Reference to the Ionic Theory. (G. W. U. Bull., 3 [3], 91-94, 1904.) (Published separately as "Experimental Electrochemistry," by D. Van Nostrand Company, New York, 1905, 284 pp., 231 ill.)

1903.

Edwin Allston Hill, (Chemistry)

A.B., 1875, A.M., 1902, Yale University; M.S., 1901, Columbian University.

Thesis: The Constitution of Certain Halogen Oxyacids as inferred from Thermochemical Data. (G. W. U. Bull., 3 [4], 94-103, 1904.)

William Mather Lamson, (Architecture)

B.S., 1897, C.E., 1899, Columbian University.

Thesis: Iron and Steel Domes. (Not published.)

Thomas Malcolm Price, (Biochemistry)

B.S., 1898, Maryland Agricultural College; M.S., 1900, Columbian University.

Thesis: The Influence of Varying Strength Solutions of Formaldehyde on some of the Enzymes of Animal Origin. (G. W. U. Bull., 3 [4], 104-108, 1904.)

- Harriet Richardson, (Zoölogy)
 A.B., 1896, A.M., 1901, Vassar College.
 Thesis: Contributions to the Natural History of the Isopoda. (Proc. U. S. Nat. Museum, 27, 1-89, 1904, and Bull. U. S. Fish Com., pp. 47-54, September 17, 1903.)

1904.

- William Macon Coleman, (History)
 A.B., 1858, A.M., 1892, University of North Carolina.
 Thesis: A Refutation of Mommsen's Theory on Cæsar's Agrarian Policy. (Not published.)
- Frank Van Vleck, (Mechanical Engineering)
 M.E., 1884, Stevens' Institute of Technology.
 Thesis: Improvements in Ship Construction. (Not published.)
- Andrew Wilson, (American History)
 B.S., 1885, B.O., 1886, B.A. 1886, M.A., 1890, Kansas Normal College;
 L.L.B., 1890, LL.M., 1891, Georgetown University; M.L., 1892, D.C.L., 1893, Yale University.
 Thesis: Influence of John Marshall on the Political History of the United States. (Not published.)

1905.

- Ray Smith Bassler, (Palæontology)
 B.A., 1902, University of Cincinnati; M.S., 1903, The Columbian University.
 Thesis: A Study of the James Types of Ordovician and Silurian Bryozoa. (Proc. U. S. Nat. Museum, xxx, 1906, 1-66, pls. I-IV.)
- Hiram Colver McNeil, (Chemistry)
 B.S., 1896, M. S., 1899, Denison University.
 Thesis: On the Constitution of Certain Natural Silicates. (C. W. U. Bull., 4 [1], 76-79, 1905.) (Journal American Chemical Society [28], 590-602, 1906.)
- Henry Albert Pressey, (Hydraulic Engineering)
 B.S., 1893, The Columbian University; B.S., 1896, Massachusetts Institute of Technology.
 Thesis: Flow of Water in Channels. (Not published.)
- Warren Waverley Phelan, (Comparative Jurisprudence)
 B.A., 1894, M.A., 1896, Columbian University.
 Thesis: An Historical Sketch of the Criminal Law of Louisiana from the Founding of the Colony to the Establishment of the State. (Not published.)

1906.

- Cornelius Lott Shear, (Botany)
 B.S., 1896, M.S., 1900, University of Nebraska.
 Thesis: Cranberry Diseases. (C. W. U. Bull., 5 [4], 75-78, 1906. Bulletin 110, Bureau of Plant Industry, U. S. Department of Agriculture, 1907.)
- Martin Norris Straughn, (Agricultural Chemistry)
 B.S., 1899, Maryland Agricultural College; M.S., 1902, Columbian University.
 Thesis: The Chemistry of Different Varieties and Individual Ears of Sweet Corn as Affected by Enzymes, Climatic Conditions, and Breeding. (Bulletin 120, Maryland Agricultural Experiment Station, 1907.)

1907.

- Rev. George Brodthage, (Germanics)
 Certificates of Universities of Strasburg, Berlin, and Göttingen.
 Thesis: Germanentum, Gottmenschentum. (G. W. U. Bull., 6 [3], 82-86, 1907.)
- Frederick Warren Grover, (Physics)
 B.S., 1899, Massachusetts Institute of Technology; M.S., 1901, Wesleyan University, Connecticut.
 Thesis: Simultaneous Measurement of the Capacity and Power Factor of Condensers. (G. W. U. Bull., 6 [3], 92-95, 1907. Bulletin of the Bureau of Standards, May 23, 1907, Reprint No. 64, pp. 371-431.)
- Edward Elliott Richardson, (Philosophy)
 B.S., 1904, M.D., 1905, M.S., 1905, George Washington University.
 Thesis: Mechanism and Teleology. (G. W. U. Bull., 6 [3], 87-91, 1907.)
- Rabbi Abram Simon, (Philosophy)
 Graduate, 1894, Cincinnati Hebrew Union College; B.L., 1894, University of Cincinnati.
 Thesis: The Constructive Character and Function of Religion in Human Progress as Illustrated by the Religion of Israel. (Not published.)
- Walter Otheman Snelling, (Chemistry)
 B.S. in Chemistry, 1904, Columbian University; B.S. in General Science, 1905, Harvard University; M.S., 1906, Yale University.
 Thesis: Contributions to the Knowledge of Tellurium. (Not published.)
- Warner W. Stockberger, (Botany)
 B.S., 1902, Denison University.
 Thesis: The Effect of Certain Toxic Solutions on Nuclear and Cell Division in Root Tips of *Vicia Faba*. (Botanical Gazette, vol. 49, pp. 401-429, 1910.)

1908.

- Frank Cummings Cook, (Chemistry)
 B.A., 1900, M.A., 1902, M.S., 1904, Yale University.
 Thesis: Phosphorus Metabolism Experiments. (Bulletin 123, U. S. Bureau of Chemistry, 63 pp.)
- Clara Southmayd Ludlow, (Preventive Medicine)
 B.S., 1900, M.S., 1901, A. and M. College, Mississippi.
 Thesis: The Mosquitoes of the Philippine Islands. The distribution of certain species and their occurrence in relation to the incidents of certain diseases. (Published separately, Washington, D. C., 1908, 65 pp.)
- Benjamin George Wilkinson, (History)
 B.A., 1897, University of Michigan; M.A., 1905, Union College.
 Thesis: The Overthrow of the Concordat by the Third Republic. (Not published.)

1909.

- William Clifton Phalen, (Geology)
 S.B., 1899, S.M., 1902, Massachusetts Institute of Technology.
 Thesis: Economic Geology of the Kenova Quadrangle in Kentucky, Ohio, and West Virginia. (Bulletin 349, U. S. Geological Survey.)
- Harry Wilson Houghton, (Biochemistry)
 B.S. in Chemistry, 1906, M.S., 1907, The George Washington University.
 Thesis: The Effect of Cold Storage on Chicken Meat. (Jour. Industrial and Engineering Chemistry, vol. 3, pp. 497-506, 1911.)

George Whitfield Stiles, Jr., (Preventive Medicine)
 B.S., 1900, Oklahoma Agricultural and Mechanical College; M.D., 1905,
 The George Washington University.
 Thesis: The Possibility of Shellfish Contamination from Sewage-Polluted
 Waters. (Bulletin 136, U. S. Bureau of Chemistry, 53 pp.)

Rev. Luther Hess Waring. (Germanics)
 B.A., 1905, The George Washington University; M.A., 1904, Columbian
 University.
 Thesis: Martin Luther's Political Reforms of Germany. (Published sepa-
 rately, G. P. Putnam's Sons, N. Y., 1910, 293 pp.)

1910.

August Frederick Wilhelm Edler, (History)
 B.A., 1906, M.A., 1907, M.Dip., 1908, The George Washington University.
 Thesis: The Relation of the Dutch Republic to the American Revolution.
 (Johns Hopkins University Studies in Historical and Political Science,
 series 29, No. 2, pp. 1-252, 1911.)

James Henry Gardner, (Geology)
 B.S., 1900, M.S., Kentucky State College.
 Thesis: The Naciminto and Torrejon Formations of the Puerco Group (not
 published).

Herbert Harvey Kimball, (Astro-Physics)
 B.S., 1884, New Hampshire College of Agriculture and Mechanic Arts;
 M.S., 1900, Columbian University.
 Thesis: Solar Radiation, Atmospheric Absorption and Sky Polarization.
 (Bulletin of Mount Weather Observatory, vol. 3, pp. 69-126, 1910.)

William Thomas Sheperd, (Psychology)
 B.Sc., 1899, Gale College; M.A., 1903, M.S., 1906, Oklahoma State Uni-
 versity.
 Thesis: On some Mental Processes of the Rhesus Monkey. (Psychological
 Monographs, vol. xii, No. 5, 61 pp.)

1911.

George Nelson Coffey, (Geology)
 Ph.B., 1900, University of North Carolina; M.S., 1908, The George Wash-
 ington University.
 Thesis: A Study of the Soils of the United States. (Not published.)

Hayner Haskell Gordon, (Engineering)
 B.S. in E.E., 1908, E.E., 1909, The George Washington University.
 Thesis: An Investigation of the Action of the Crystal Rectifying Detectors.
 (Not published.)

Grace Helen Kent, (Psychology)
 A.B., 1902, A.M., 1904, University of Iowa.
 Thesis: Experiments on Habit Formation in Dementia Præcox. (The Psy-
 chological Review, vol. 18, pp. 375-410, 1911.)

Charles Neil McBryde, (Preventive Medicine)
 B.S., 1891, University of South Carolina; M.S., 1893, The Virginia Poly-
 technic Institute; M.D., 1897, The Johns Hopkins University.
 Thesis: A Bacteriological Study of Ham Souring. (Bulletin 132, U. S.
 Bureau of Animal Industry, 55 pp.)

Edwin Wiley, (English)
 B.S., 1891, A.B., 1898, A.M., 1898, University of Tennessee.
 Thesis: Shakespeare's Treatment of the Supernatural in the Light of Con-
 temporary Thought and Opinion. (Not published.)

Rev. Francis Xavier Zerhusen, (Germanics)
 A.B., 1906, Notre Dame University.
 Thesis: The Humanistic School of Deventer and its Offshoots. (Not published.)

1912.

Alton Lewin Kibler, (Chemistry)
 A.B., 1904, Randolph-Macon College; M.S., 1909, The George Washington University.
 Thesis: Mercury Fulminate. (Eighth International Congress of Applied Chemistry, 25, pp. 239-243, 1912.)

William John McCaughey, (Mineralogy)
 B.S., 1906, University of Pennsylvania.
 Thesis: Mineralogical Methods in Soil Investigation. (Not published.)

1913.

Thomas Latimer Kibler, (Economics)
 A.B., 1904, Randolph-Macon College; A.M., 1908, The George Washington University.
 Thesis: The Commodities Clause: A treatise on the development and enactment of the Commodities Clause and its construction when applied to interstate railroads engaged in the coal industry. (Not published.)

Rev. Elmer Eugene Marshall, (History)
 A.B., 1889, Ohio Wesleyan University; S.T.B., 1894, Boston University.
 Thesis: The Evangelical Revival: A vital factor in the reconstruction of English life in the eighteenth century. (Not published.)

Professor Marcus Ward Lyon, Jr., (Zoölogy)
 B.Ph., 1897, Brown University; M.S., 1900, M.D., 1902, The George Washington University.
 Thesis: Treeshrews: An account of the mammalian family Tupaiidæ. (Proceedings U. S. National Museum, vol. 45, pp. 1-188, 11 plates, 1913.)

It may be well to recall that this school was started without any appropriation or special equipment, and that it has never since received any. It has depended for its resources on such equipment in personnel and material as the University has possessed and on that of the U. S. Government, so far as it has been available. The present is a critical time in the history of the University, in which its Graduate work is to play an important part. I feel sure that the scholastic features will sustain close scrutiny. I believe it of the first importance that an endowment be raised for this school and that its surplus be applied to its development. In addition to my previous recommendation that instructors be appointed to enable our undergraduate professors to give more time to research and to graduate work, it is most desirable that some professors be appointed whose chief duty is to this Faculty, and that there be some funds available for special materials and apparatus for use in research.

Very respectfully,

CHARLES E. MUNROE,
 Dean, Faculty of Graduate Studies.

TO THE PRESIDENT OF THE UNIVERSITY.

SIR: As requested by your esteemed favor of October 25, I would respectfully submit the following report on the Department of Law for the academic year 1912-1913, including statistics giving "information concerning the personnel of the students registered":

The Department of Law opened its session Wednesday, September 25, 1912, and closed its academic year with the commencement of the University, Wednesday, June 11, 1913.

There were registered in the Department 312 students in all, an increase of six (6) over the registration of the preceding year. There was, however, in the first, or entering, class, an increase of twenty (20). The prospective growth was intimated rather by this than the other figure.

The summary of the registration is as follows:

Candidates for LL. B. Degree:	
First year.....	113
Second year.....	65
Third year.....	89
Total.....	267
Candidates for LL. M. degree.....	
Special	5
Review	43
Auditors	1
	3
	319
Duplicates	7
Total.....	312

Among the above students there were 270 candidates for degrees, and of these 109, or 40.3 per cent, were graduates of universities or colleges. There were graduates of 60 of these institutions included.

The largest number of graduates from any one institution was naturally from George Washington University, they numbering 12, and from the following in the order named: from Cornell, 8; U. S. Naval Academy, 7; Harvard, 6; Massachusetts Institute of Technology and Purdue University, each 4; from Yale, Dartmouth, and Ohio State University, each 3.

This enumeration illustrates the wide circle and various sources from which our students are drawn, and seems to establish the tendency of alumni from the institutions of the very highest type to register in our Law Department.

A tabulated list showing the several institutions whose graduates are registered and the number of students enrolled from each is here submitted:

COLLEGE GRADUATES CANDIDATES FOR DEGREES

Alabama, University of.....	1	Michigan, University of.....	2
Amherst College.....	1	Minnesota, University of.....	1
Ateneo de Manila.....	1	Mississippi Agricultural and	
Austin College.....	1	Mechanical College.....	1
Bates College.....	1	University of Nebraska.....	2
Biltmore Forest School.....	1	Nebraska Wesleyan Univer-	
Bowdoin College.....	1	sity.....	1
Brown University.....	1	Ohio Northern University....	1
Charleston, College of.....	1	Ohio State University.....	3
Chattanooga, University of...	1	Pennsylvania State College...	1
Chicago, University of.....	1	Pennsylvania, University of...	1
Colby College.....	1	Princeton University.....	2
Colorado, University of.....	1	Purdue University.....	4
Columbia University.....	2	South Carolina, University of	2
Cornell University.....	8	Swarthmore College.....	1
Cotner University.....	1	Syracuse University.....	2
Dartmouth College.....	3	United States Naval Academy	7
Drake University.....	1	Utah, University of.....	2
Ewing College.....	1	Vermont, University of.....	1
Franklin and Marshall Col-		Wisconsin, University of.....	1
lege.....	1	Washington and Jefferson	
George Washington Univer-		College.....	1
sity.....	12	Washington and Lee Univer-	
Georgia, University of.....	1	sity.....	2
Hamilton College.....	2	Wesleyan University.....	2
Harvard University.....	6	Western Maryland University	1
Illinois College.....	1	Western Reserve University..	1
Indiana University.....	1	Worcester Polytechnic Insti-	
Iowa State College.....	2	tute.....	2
Iowa, State University of....	1	Yale University.....	3
Kalamazoo College.....	2		
Kansas, University of.....	1	Total.....	115
Lawrence College.....	1	Counted twice.....	6
Lehigh University.....	1		
Louisiana State University...	1	Total.....	109
Maryville College.....	1	Candidates for Degrees.....	270
Massachusetts Institute of		Percentage.....	40.3
Technology.....	4		

The students enrolled during the past year have registered from forty-two States and Territories, from the Philippines, and from two foreign countries.

The largest number is naturally from the District of Columbia, numbering 60. Virginia is next with 21, New York follows with 20, Massachusetts with 18, Pennsylvania 13, Iowa 13, Maryland 12, and Wisconsin 9.

A tabulated and complete statement showing the number registered from each State, Territory, or country is herewith submitted.

Alabama	2	New Mexico.....	1
Arizona	1	New York.....	20
Arkansas	1	North Carolina.....	1
California	2	North Dakota.....	2
Colorado	7	Ohio	8
Connecticut	3	Oklahoma	3
District of Columbia.....	60	Pennsylvania	13
Georgia	2	South Carolina.....	6
Idaho	3	South Dakota.....	5
Illinois	9	Tennessee	6
Indiana	6	Texas	7
Iowa	13	Utah	6
Kansas	4	Vermont	5
Kentucky	2	Virginia	21
Louisiana	3	Washington	6
Maine	6	West Virginia.....	2
Maryland	12	Wisconsin	9
Massachusetts	*18		
Michigan	9		309
Minnesota	3	Philippines	1
Mississippi	3	Mexico	1
Missouri	6	Dominican Republic.....	1
Montana	1		
Nebraska	8	Total.....	312
New Jersey.....	4		

Substantially all of the students in the afternoon classes chose those hours because other employments preclude their taking most of the morning hours.

One topic, of two hours a week in each semester, is given in an elective subject from 7.50 A. M. to 8.40 A. M. This can be taken by students engaged in the departments of the Government, and enables them to forego registration for one afternoon. It is proving popular, and students are as regular and as prompt as at other hours.

Two hundred and fifty-three students report separate employment; 59 report none. The largest number, 102, are employed in the classified Federal service. Fifty-two more are patent examiners, and the remaining 99 who report employments are distributed through various occupations. A complete tabulated statement of the same is herewith submitted:

1. Law offices.....	13
2. In public service.	
a. Federal:	102
General classified service.....	52
Patent examiners.....	8
Library of Congress.....	1
United States courts.....	11
Secretaries to Senators and Representatives.....	2
Secretaries to judges.....	10
Positions at Capitol.....	5
Naval officers.....	1
Parliamentary clerk, House of Representatives.....	

b. Municipal:		
Officers of administration.....	3	
High school teachers.....	3	
3. Private school teachers.....	2	
4. Lawyers.....	1	
5. Law Department assistant librarians.....	3	
6. Other business where legal training is of value, in banks, real estate, etc.....	17	
7. Reporters.....	3	
8. Other occupations.....	18	
Total.....	255	
Duplicates.....	2	
Total.....	253	
No employment given.....	59	
Total gross registration.....	312	

The statistics of the past year show 147 new students admitted. Of these, 39 were college or university graduates, 45 secondary school graduates, 30 furnished the requisite credits from secondary schools, 7 were conditioned, and 26 were special students not candidates for our degree.

The reasons for entering as special students are various. Some desire to prepare for the bar examinations; others to take selected topics in preparation for some particular employment other than the bar, as banking or general commerce, and so desire the law of contracts, of sales, and commercial paper, but not of torts, criminal law, or common-law pleading.

A tabulated statement giving further details is herewith submitted:

	Men.	Women.	Total.
Admitted to Regular Standing			
For LL. B.:			
Unconditioned—			
College graduates.....	36	1	37
Secondary school graduates.....	44	0	44
Non-graduates of secondary schools.....	30	0	30
Total.....	110	1	111
Conditioned.....	7	0	7
Total for LL. B.....	117	1	118
For LL. M.:			
College graduates.....	2	0	2
Secondary school graduates.....	1	0	1
Total for LL. M.....	3	0	3
Special students.....	26	0	26
Total admissions.....	146	1	147

The amount of the deficiencies of the seven students admitted under condition during the year is shown in the following brief statement.

It appears that but one was conditioned in three units, which is the maximum allowed; that the average deficiency in students admitted with conditions as to preliminary education was two units; that there was one student conditioned in one unit, five conditioned in two units, and but one, as indicated, in the maximum of three units.

The following tables show the number of class hours for which the various students registered. They show the total average number of semester hours taken per week:

By regular students, A. M.....	20.53
By regular students, P. M.....	20.07
By regular students, all classes.....	20.24
By special students, A. M.....	15.5
By special students, P. M.....	12.61
By special students, total.....	13.41
By all students, A. M.....	19.78
By all students, P. M.....	19.81

Candidates for Degrees.

	L.L. B.			L.L. M.			Total.		
	A. M.	P. M.	Total.	A. M.	P. M.	Total.	A. M.	P. M.	Total.
Number of students.....	34	202	235*†	0	2	2	34	203†	237
Total number hours taken.....	608	4,065	4,787*	0	19	19	608	4,075‡	4,797
Average hours per student.....	20.53	20.12	20.37	0	9.5	9.5	20.53	20.07	20.24

Special Students.

	Special students.			Total all students.		
	A. M.	P. M.	Total.	A. M.	P. M.	Total.
Number of students.....	6	16	22	40	217‡	257
Total number hours taken.....	93	202	295	791	4,277	5,002*
Average hours per student.....	15.5	12.61	13.41	19.78	19.71	19.81

* One added who alternated between A. M. and P. M. classes and was not counted except in the total. This student took 24 semester hours.

† One deducted because counted twice.

‡ Two deducted because counted twice.

To show the grade of scholarship maintained a tabulated statement has been prepared, including all students in attendance for at least one semester and taking at least one set of examinations.

These are classified as enrolled in A. M. or P. M. classes, and as in the several regular years, or as special, and the results of the examinations as to these several classes of students are computed, the number failed or conditioned being shown, and also the percentage.

From this it appears there were so failed or conditioned—

In the first-year A. M. class.....	35.71%
In the first-year P. M. class.....	36.90%
In the first-year entire class.....	35.63%
 In the second-year A. M. class.....	 50. %
In the second-year P. M. class.....	38.89%
In the second-year entire class.....	40.63%
 In the third-year A. M. class.....	 60. %
In the third-year P. M. class.....	13.33%
In the third-year entire class.....	18.82%

The percentage of similar failures or conditions for—

Special students A. M. class.....	50. %
Special students P. M. class.....	31.25%
Special students entire class.....	36.36%

The average percentage so failed or conditioned—

In all A. M. classes is.....	47.50%
In all P. M. classes is.....	29.05%
In all students, all hours, is.....	31.51%

The average proportion so failed or conditioned for all classes appears to be but slightly less than one-third—namely, 31.14%—and the A. M. students show 18.47% more of such defects than the P. M. students.

The reason for the superiority of the P. M. class must be found in greater maturity of men enrolled and greater earnestness, as almost all are self-supporting. Many of the A. M. men are of the highest excellence, but some are young and not self-supporting, and in these smaller morning classes two or three defective students greatly impair the percentage of scholarship for the class. Something, too, must be accorded to the stimulus of a large and eager class which affects almost all its members. The tests and examinations for the various classes are the same.

Average Percentage of Scholarship.

A brief table of average scholarship has been prepared, and is submitted. The average of all students is 75.29%. It is encouraging to find the average lowest (among classes) in the first year; that there is

a marked increase (2.66%) in the second and third years, and a still further rise of 1.20% in the candidates for the master's degree.

The special students, most of whom are not candidates for a degree because of deficiency in preparatory education, as might be expected, on an average fall markedly below the general average, being 6.84% below that standard.

The table of these percentages of scholarship is herewith submitted:

Average Yearly Percentage of Scholarship Students, 1912-1913.

First year.....	73.61
Second and third years.....	76.27
LL. M.....	77.47
Total candidates for degrees.....	75.89
Special	68.35
Total all students.....	75.29

A table of the ages of students has been prepared:

Students counted (one review student omitted).....	311	students.
Average age (25.54 years).....	36	"
Below average	147	"
Above average	128	"
Lowest age (18 years).....	3	"
Greatest age (46 years).....	1	"
Below 21 years.....	32	"
Thirty years or over.....	48	"

The continuance and return of students is shown by the annexed table. The loss is heaviest between the first and second years, as might be expected:

Survival of Students, 1912-13.

	1st year.	2d year.	3d year.	L.L. M.	Spec.	And.	Review.	Total.
Gross registration	113	65	89	5	43	3	1	312(a)
Registration at end of year	83	60	70	3	28	1	1	245(d)
Loss during year	30	5	16*(b)	2	12(c)	2	0	67
Returned 1913-14	71	48	18	1	13	0	0	151

* 11 by graduation at fall and winter convocation.

(a) 7 counted twice.

(b) 3 continued as specials or L.L. M.

(c) 3 counted both as special and L.L. M.

(d) 1 counted twice.

A table has been prepared, and is herewith submitted, showing the gross registration for A. M. and P. M. classes, for early 7.50 A. M. classes, and in the various classifications of students.

It shows 65 students in the ordinary A. M. classes and 247 in the P. M., thus showing the ordinary morning classes as containing about 20.83% of the whole attendance, or about one-fifth.

The table is as follows:

Classes.	A. M.	P. M.	Total.
I.	32	81	113
II.	10	55	65
III and IV.....	11	78	89
LL. M.	2	3	5
Special	12	31	43
Auditor	0	3	3
Review	0	1	1
Counted twice	2	5	7
Total.....	65	247	312

Early A. M., 7.50 to 8.40, not included in other A. M., 84.

The University, on the recommendation of the Department of Law, during the year 1912-13 conferred 68 degrees, of which the following brief table gives a more detailed account:

LL. B.:	
Fall	3
Winter	10
Commencement	52
B. L.:	
Winter	1
Commencement	1
LL. M.	1
	<hr/> 68

The rules for admission are in accord with the requirements of the Association of American Law Schools. The requirements of many of the schools belonging to that Association have been advanced beyond that standard by one or two years of college work. That the Association will advance its standard in the near future seems indicated.

Very respectfully,

CHAS. N. GREGORY,
Dean, Department of Law.

TO THE PRESIDENT OF THE UNIVERSITY.

SIR: I have the honor to submit the following report of the conduct of the Department of Medicine for the fiscal year ending August 31st, 1913, supplemented by facts relative to the Department of Medicine from August 31st up to the present date.

The motive which has dominated the action of the Faculty of Medicine during the past year has been the continuance of its policy to improve and systematize the teaching and the facilities of the Department for its students and maintain the expenses of the Department within its income.

While the Department of Medicine has now six fully equipped laboratories in which the teaching of Anatomy, Bacteriology and Pathology, Chemistry, Histology and Embryology, Physiology and Pharmacology, and Physiological and Clinical Chemistry are carried on, it will be necessary before the beginning of next session to double the size of the laboratory for physiological and clinical chemistry and increase the physiology laboratory by about one-half. This increase in the size of the laboratories will be required on account of the increase in the size of the first and second year classes.

The Library has been quite extensively added to during the last year, both by purchase and contributions. The Library is now in excellent condition, and is well looked after by Dr. Craig, the Librarian.

As reported last year, the Museum has not yet been developed in equality with the library and laboratories. A full-time teacher has now been employed in Pathology, and is actually engaged in the preparation of new specimens, and this will add materially to the value of the Museum for medical purposes.

The curriculum for the third and fourth year classes was materially rearranged for the past session, thereby increasing the amount of clinical work in our own hospital and decreasing the work in distant institutions.

The past year, like the preceding three years, has shown a steady and gratifying increase in the number of matriculants.

In my first year as Dean, session 1909-10, there were but 15 matriculants; in 1910-11 there were 32; 1911-12, 39, and in 1912-13 there were 67. The increase from 15 to 67 is considered excellent.

In conformity with the requirements of the American Medical Association and the Association of American Medical Colleges, one year of college work in physics, chemistry, biology, and a modern language will be required after the 1st of January, 1914. To meet this pre-medical college requirement, a pre-medical college year will be given next session in the Columbian College.

This connection will tend to bind more closely together the Department of Arts and the Department of Medicine in the University, as all high school graduates who intend to study medicine, instead of going directly to the Department of Medicine, must first take a college year.

and this should bring to the Department of Arts a considerable number of students from outside as well as in the District.

Students non-resident in the District of Columbia are probably more numerous in the Department of Medicine than in any other Department of the University.

In our first-year class 25 States and 7 foreign countries were represented.

The geographical distribution of students for 1912-13 whose homes are outside the District is as follows:

	1st year.	2d year.	3d year.	4th year.	Total.
Connecticut	1	..	..	..	1
California .....	..	..	1	1	2
Dist. of Columbia..	15	5	8	4	32
Florida .....	..	..	1	..	1
Illinois .....	..	1	..	..	1
Iowa	1	..	..	..	1
Indiana	1	..	..	..	1
Massachusetts	1	..	..	..	1
Minnesota .....	..	1	1	..	2
Maryland	3	..	..	1	4
Maine .....	..	2	..	..	2
Montana	1	..	..	..	1
New Hampshire...	..	..	1	..	1
New York.....	7	3	3	1	14
North Carolina...	..	2	1	..	3
New Jersey.....	2	..	1	..	3
Nebraska .....	..	..	1	..	1
Ohio .....	..	1	..	1	2
Pennsylvania	2	3	3	1	9
Rhode Island.....	1	..	..	..	1
South Carolina....	..	..	..	1	1
Virginia	3	1	2	1	7
West Virginia....	1	1	..	..	2
Wisconsin	1	..	..	..	1
Washington	1	..	..	..	1
Australia .....	..	..	1	..	1
Cuba .....	..	..	1	..	1
China .....	..	..	1	..	1
Porto Rico.....	2	..	..	..	2
Panama	1	..	..	..	1
Russia	1	..	..	..	1
France	1	..	..	..	1
	46	20	26	11	103

The wide distribution of students is particularly gratifying, and shows that the Medical Department is receiving students from all parts of the United States. This flow of students should, after 1913-14, be directed to the Department of Medicine through the Department of

Arts, for if proper standards are maintained and adequate standing before the American Medical Association and other medical and educational bodies is continued, this flow of students from all parts of the United States should as steadily increase in the Department of Arts as has the flow of students to the Department of Medicine in the last four years. I am fully convinced that under existing conditions within five years from 50 to 75 students will be taken into the pre-medical course in the Department of Arts, for students are the best advertisement of a school, and non-resident students from one department, returning to their homes, induce other students to come to other departments of a University.

The University conferred the degree of Doctor of Medicine on 10 students during the past year. The small number of graduates was due to the small number of matriculants in the panic year of the institution, 1909-10.

The standing of graduates before State boards during the past year, while excellent, was not as good as of preceding years.

In 1911 we had but 5.7% of failures. In 1912 we had 14.9% of failures. This increase in failures was partly due to the repeated failures of a single student who failed three times before State boards, which failures were counted, of course, as though they were three different men who failed. This student was one of the last group of students who, after failing at the regular spring examinations, was given a re-examination in the fall, and allowed to graduate at the Fall Convocation. Now that the method of re-examination and graduation at fall and mid-winter convocations has been discontinued, the probability of such failures will be greatly reduced.

The clinical service in the University Hospital and Dispensary has been materially increased and better correlated with the teaching in the school.

In this connection the report of the Examiner of the American Medical Association is to be given attention, as reported last year: "It is to be regretted that the University Hospital does not afford larger clinical facilities, and it is to be hoped that at an early date you may find it possible to erect the proposed addition."

To overcome this deficiency in our own clinical facilities, every effort has been made to correlate properly our clinical instruction in near-by hospitals, namely, Garfield, Emergency, Columbia, and Children's Hospital. It is to be hoped that an increase in the hospital and dispensary may be had, and in my opinion a determined effort should be made to build an addition to the hospital, particularly of clinical wards. There is sufficient ground upon which to build, and an addition of clinical wards and a larger dispensary would place the medical school in a much better position relative to other schools which have larger clinical facilities.

Relative to the finances of the Hospital, it is interesting to note the

steady increase in income from pay patients and other sources. The income for the last four fiscal years is as follows:

1909-10.....	\$35,533.10
1910-11.....	41,453.94
1911-12.....	49,204.01
1912-13.....	52,765.73

This shows a steady increase from \$35,000.00 to \$52,000.00 income within the time named.

With its present capacity the Hospital has doubtless reached the maximum of income.

In connection with this increase of income, it is to be noted that the appropriation from Congress for the year when I first became Dean was \$2,000.00. In 1911-12 it was raised to \$3,000.00, 1913-14 to \$4,000.00, and the Board of Charities has recommended for next year an increase to \$5,000.00. Altogether the past year gives an excellent financial showing for the Hospital in that it received a legacy of \$3,865.37, an appropriation increase of \$1,000.00, cleared above all expenses \$4,101.80, while during the same year a Nurses' Home was purchased and a cash payment of \$5,000.00 made upon it, of which \$1500.00 was contributed by the Board of Lady Managers, the remainder being loaned from the Medical Department surplus to the Mary E. Jacques Legacy, which legacy, it was advised, should be used for the purchase of a Nurses' Home, that being the most crying need of the Hospital.

This leaves a debt of \$7,000.00 upon the property, with an interest obligation of \$350.00. Negotiations are now in progress for the purchase of an addition to the Home, and this can be readily done, as the Board of Lady Managers have adopted the policy of turning in all moneys received by them in excess of the annual dues toward the payment for and extension of the Nurses' Home.

In spite of the increased expense incident to improving and maintaining the facilities of the Medical Department during the fiscal year 1912-13, the Department of Medicine, including the Department of Dentistry and the University Hospital, all of which are treated as a unit, succeeded in meeting all obligations, including the University assessment, and had a balance of \$4,485.57.

On account of the increased expenditure for the employment of full-time teachers and the decrease in attendance which is expected in 1914-15, when the entrance requirements will be raised, the surplus of the Department of Medicine should be carefully held for future emergency.

The increase in the number of students this year, and the further increase expected in 1913-14, will in a measure offset the increased expenditure, but to what extent the raising of the standards for admission will affect the revenue in 1914-15 is uncertain. As all reputable medical schools in the United States will raise their requirements for

admission to at least one year of college work, students will be obliged to either accept the situation or will be forced into a poorer class of medical schools. It is not believed that the latter result will follow to any large extent, as a diploma from a low-grade school will be of little value to the holder.

Although the Medical Department will undoubtedly suffer in number, due to the increased requirements, this loss, so far as the University is concerned, will in part be offset by the fact that a number of students who intend to study medicine will take a pre-medical course in Columbian College, and while the revenue of the Department of Medicine may be decreased, the revenue of the University will perhaps not be materially lowered.

Respectfully submitted,

W. C. BORDEN, *Dean.*

TO THE PRESIDENT OF THE UNIVERSITY.

SIR: I have the honor to submit to you a report on the Department of Dentistry for the academic year 1912-13.

The teaching staff consisted of 10 professors, 11 associate professors, 6 instructors, 1 lecturer, and 3 demonstrators.

The student body consisted of 70 matriculants, 60 of whom completed the full year's work. Of the Senior Class, 14 in number, 13 graduated and 1 failed.

It is the intention of the Faculty to conform, if possible, with the law of the State of New York, which requires that all teaching be completed by 6 P. M. It is of importance that we conform with the law in order that our graduates may be enabled to enter on immediate practice in the State of New York without being compelled first to study further in some school registered by the State. If the bulk of our work is completed by 6 P. M., our application for registration will be given consideration, and a plan is being matured by which this is to be accomplished.

It gives me pleasure to inform you, from a report of the National Association of Dental Examiners, that our graduates of 1910-11 and 12 passed the different tests required of them in the various States where they have gone to practice.

J. ROLAND WALTON, *Dean.*

TO THE PRESIDENT OF THE UNIVERSITY.

SIR: I have the honor to present the following report of the work in the National College of Pharmacy for the academic year 1912-1913:

The session of 1912-1913 began on September 19, 1912, and closed May 5, 1913. At the close of registration in the last week of October, 1912, the number of students in attendance in all classes was 69. By classes they were divided as follows: freshmen, 28; juniors, 23;

seniors, 15, inclusive of one reinstatement in January, 1913. Students taking special courses numbered 4—1 in Pharmacy and 3 in Chemistry. There were 64 men and 5 women. Of the 69 students 8 were employed by the General Government; 2 were non-resident students not in employment; 59 were employed in pharmacies.

Of the students admitted to the freshmen class 12 were conditioned and 16 were unconditioned. The 16 included 4 students admitted in May, 1912, when the requirement for one year in high school, or the equivalent thereof, was still in force. The other 12 of the 16 admissions were on certificates showing two years or more of high-school instruction.

At the close of the session 23 freshmen qualified for examination; 15 were advanced to the junior class without conditions; 8 were required to repeat one or more subjects in the freshman year.

The junior class numbered 22 who were qualified for examination for advancement to the senior class; 14 were advanced without conditions, and 8 were required to repeat one or more subjects in the junior year.

Fifteen senior students were qualified for examinations; 1 did not appear; 14 were examined, and 11 were recommended to the George Washington University for the degree of Doctor of Pharmacy.

The quality of work and progress made by the several classes was satisfactory. Falling off in attendance during the course was very light. In all 8 students left the school, their reasons for leaving being change of vocation and departure from the city. In one case withdrawal from the College was encouraged. By classes the loss was as follows: freshmen, 5; juniors, 1; special, 2.

The following table shows the percentage of correct answers made by the three classes, including only students that were passed unconditionally:

Freshmen, highest possible percentum of correct answers for the four branches in this course.....	400
Lowest passing percentum.....	220
Highest percentum of correct answers received.....	331
Lowest percentum of correct answers received.....	231
Average for the class advanced.....	231
Juniors, highest possible percentum of correct answers for the five branches in this course.....	500
Lowest passing percentum.....	300
Highest percentum of correct answers received.....	434.8
Lowest percentum of correct answers received.....	334
Average for the class advanced.....	368
Seniors, highest possible percentum of correct answers for the seven branches in this course.....	700
Lowest passing percentum.....	525
Highest percentum of correct answers received.....	661.4
Lowest percentum of correct answers received.....	537.5

Average for the 11 recommended to the University for the degree of Phar. D..... 587.1

Of the 12 conditioned students admitted to the freshman class 4 have discharged the condition imposed as required before matriculation, and certificates to this effect have been received from accredited schools; 3 have left the college, and 5 are now in the junior class, beyond which they cannot advance until the entrance conditions have been discharged.

The policy of the trustees of the college in making liberal appropriations for purchase of apparatus toward keeping the laboratories fully supplied with all materials necessary to carry out properly the required work has been in continuous and effective operation. The faculty consists of seven professors and three assistants.

Respectfully submitted,

H. E. KALUSOWSKI, *Dean.*

TO THE PRESIDENT OF THE UNIVERSITY.

SIR: I have the honor to submit herewith a report on the College of Veterinary Medicine:

The year September 1, 1912, to September 1, 1913, was the fifth of its existence as an associate college of The George Washington University, the enrollment of students for that year being as follows:

Seniors	10
Juniors	19
Freshmen	9
Total.....	38

These students were admitted on the following terms:

Certificate of diploma.....	12
Credit for second-grade civil service examination.....	12
Regular entrance examination.....	14
Total.....	38

The enrollment of 9 freshmen was gratifying in view of the fact that these men entered on a four-year course, the lengthening of the course to four years being thought advisable because, under the three-year régime, it was found impracticable to cover, in a comprehensive manner, the numerous subjects necessary to complete a full course in Veterinary Medicine given after 5 P. M.

The greater percentage of the students of this college are Government employees, and the personnel is probably much higher than that of other schools of Veterinary Medicine. With the lengthening of the course the requirements of graduation have been increased. These

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demands have been met by the students so affected in a very satisfactory manner, and the quality of scholarship maintained by our student body is very gratifying to the Faculty.

Financially the school is on a sound basis, gradually adding to its equipment, obtaining all the paraphernalia essential to the proper instruction of its students.

Respectfully submitted,

D. E. BUCKINGHAM, *Dean*.

